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COMMITTEE PRINT

THE 94TH CONGRESS
AND THE ENERGY RECORD

A PROGRESS REPORT

PREPARED BY THE
CONGRESSIONAL RESEARCH SERVICE

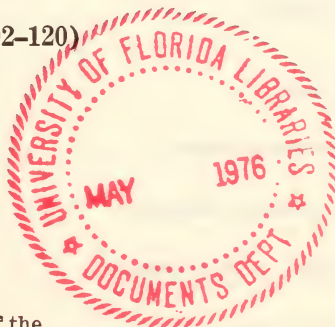
AT THE REQUEST OF

HENRY M. JACKSON, Chairman
COMMITTEE ON INTERIOR AND
INSULAR AFFAIRS
UNITED STATES SENATE

PURSUANT TO

S. Res. 45
A NATIONAL FUELS AND ENERGY
POLICY STUDY

Serial No. 94-30 (92-120)



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NATIONAL FUELS AND ENERGY POLICY STUDY

(SENATE RESOLUTION 45, 92D CONGRESS)

This publication is printed for the use of Senators participating in the National Fuels and Energy Policy Study, authorized by Senate Resolution 45 of the 92d Congress.

Senate Resolution 45, introduced by Senator Jennings Randolph and Henry M. Jackson, was amended and agreed to by the Senate on May 3, 1971. The resolution authorized the Senate Committee on Interior and Insular Affairs and ex officio members of the Committees on Commerce and Public Works and the Joint Committee on Atomic Energy to make a comprehensive study of programs and policies required to meet national energy needs.

Subsequently, the Senate approved the addition of ex-officio members from the Committees on Aeronautical and Space Sciences, on Finance, on Foreign Relations, on Government Operations, and on Labor and Public Welfare.

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MEMORANDUM OF THE CHAIRMAN

To Members and Ex-Officio Members of the Senate Committee on Interior and Insular Affairs National Fuels and Energy Policy Study, Pursuant to Senate Resolution 45 (92d Congress):


This report undertakes to describe congressional activity in the field of energy policy completed during the 1st session and underway early in the 2d session of the 94th Congress.

During this period, more committees in both House and Senate were grappling with complex and controversial energy issues than ever before. While the legislative record is far from complete, it is already clear that the 94th Congress is making valuable contributions to the work of developing new energy policies commenced in the 93d Congress, sufficient to mark 1975 as a major turning point in our Nation's energy history.

This report provides valuable background on energy-related legislation already enacted and in progress during the first quarter of the second session. I have, therefore, directed that it be published as a committee print for the use of Senators participating in the national fuels and energy policy study.

HENRY M. JACKSON, *Chairman.*

(III)



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LETTER OF TRANSMITTAL

THE LIBRARY OF CONGRESS,
CONGRESSIONAL RESEARCH SERVICE,
Washington, D.C., March 20, 1976.

HON. HENRY M. JACKSON,
U.S. Senate,
Washington, D.C.

DEAR SENATOR JACKSON: In response to your request, I am transmitting herewith a manuscript entitled: "The 94th Congress and the Energy Record". This review of the progress of energy legislation completed during the first session and underway during the first quarter of the second session, was compiled by Dr. Frances Gulick, analyst in our Environment and Natural Resources Policy Division.

I am pleased that you have decided to issue this report as a committee print to bring it to the attention of the entire Congress.

Sincerely,

NORMAN BECKMAN,
Acting Director.

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THE 94TH CONGRESS AND THE ENERGY RECORD

ABSTRACT AND INTRODUCTION

The 94th Congress is deeply engaged in intensive consideration of a strategic national issue: What should be the size, substance, and shape of a comprehensive energy policy for the United States? The opening months of the 2d session of the 94th Congress found Congress and the administration well along in the forging of a consensus on such a new energy policy, to a degree that was unexpected after months of virtual deadlock that persisted down to the final weeks of December 1975.

The landmark legislation marking that emerging consensus is incorporated in Public Law 94-193, the Energy Policy and Conservation Act of 1975, signed December 22, 1975. This law marks the culmination of more than 2½ years of almost continuous debate by the 93d and 94th Congresses on legislation to provide standby energy emergency authorities as well as longer run measures to conserve existing fuels and to increase the volume of domestic energy supplies.

As finally enacted, the law consolidates provisions of five major bills introduced in the 94th Congress—S. 622, the Standby Energy Authorities Act; S. 677, the Strategic Energy Reserves Act; S. 349, the Energy Labeling and Disclosure Act; S. 1882, the Automobile Fuel Economy Act; and H.R. 7014, the Energy Conservation and Oil Policy Act. In addition it amends and substantially extends the provisions of the expiring Emergency Petroleum Allocation Act of 1973.

Many of the provisions in this significant new law are very similar to those in the predecessor bill of the 93d Congress, the National Energy Emergency Act which had been hotly debated over a period of more than 15 months, revised by literally hundreds of amendments, vetoed, and twice reintroduced before that Congress adjourned.

It would be a mistake, however, to infer from this that there is little difference between the two. On the contrary, there appear to be major shifts in both the mood of Congress and the intent of the current legislative action.

It is indicative that the term "emergency" has been dropped from the title of the bill, the word "temporary" has been dropped from the statement of the purposes, and the termination date for most of the key provisions is now not 2 years hence but 5.

Overburdened with detail as are the 123 sections of the law, there may be seen throughout clear signs that this Congress is assuming both authority and shared responsibility for the outcome of the rigorous tasks required to shape a new energy policy for the Nation's future.

LEGISLATIVE ACTIONS

The degree and substance of the enlarging consensus between Congress and the administration may be seen in the fact that this new omnibus Energy Policy and Conservation Act covers the sub-

stance of at least 4 of the 13 titles of the administration's original composite energy bill (S. 594/H.R. 2633 and H.R. 2650), and 4 additional measures desired by the administration are included in legislation which has passed one or both Houses in a form generally acceptable to the administration.

Measures already enacted include the following: Authorization to create a system of national strategic petroleum reserves; a wide range of standby energy emergency legislation, including continuing authority for allocation of scarce materials and petroleum; graduated decontrol of oil prices over 39 months; extended authority for the FEA Administrator to force industrial conversion from oil and natural gas to other fuels; mandatory labeling for energy-using appliances and mandatory compliance with automobile fuel-efficiency standards. Major appropriation bills have already committed most of the \$11.6 billion assumed for natural resources, environment, and energy outlays in the first concurrent resolution on the budget for fiscal year 1976. In 1976, outlays for energy alone are estimated at \$7,944,000,000 and at \$10,361,000,000 for 1977. (See Appendix I for breakdown.)

In process are bills covering the development and use of naval petroleum reserves (H.R. 49/S. 2173, in conference); mandatory building standards and winterization assistance (H.R. 8650) and graduated deregulation of natural gas. (The Senate version, S. 2130, is said to be acceptable to the administration).

Remaining from the original composite packages and still awaiting action are Clean Air Act revisions, changes in regulatory procedures and investment credits for utilities; and a number of provisions designed to speed up State decisions on siting and development of major nuclear, coal, and other energy facilities.

The appearance of a consensus on these measures, however, does not mean that in sum they add up to the equivalent of a comprehensive new national energy policy. On the contrary, the key issue of what relative priority is to be given to reliance on nuclear energy as compared with fossil fuels and development of alternate renewable fuels has not yet been fully joined, although the elements of a major debate are emerging and gaining increased attention nationwide. The related issue of how and through what agencies both private and public capital is to be mobilized also remains to be hammered out. The administration's proposed Energy Independence Authority, a \$100 billion loan and investment guarantee agency (S. 2532/H.R. 10267), has run into strong opposition and the congressional majority's National Energy Production Authority (S. 740) and national petroleum and natural gas conservation and coal substitution bill (S. 1777) have not yet been reported for floor debate. Major confrontations may be expected when these are put to vote.

Nonetheless, the progress is substantial, already sufficient to identify the legislative actions of the 94th Congress as a major turning point in national energy policy.

THREE DISTINCTIVE FEATURES

Underlying this intensive activity and the resultant enlarging consensus are several distinctive features that uniquely mark the efforts and achievements of this Congress. These may prove to be definitive in setting the direction in which the new national energy policy will

move—among them the adoption of a composite approach to energy policy, the repeal of the depletion allowance for large oil and gas firms, and the emergence of the use of quantitative restrictions as major management tools in restraining and reshaping energy demand.

The composite approach to formulating energy policy.—Responding to the administration's omnibus legislative package announced January 15, 1975, Congress approached the complex collection of basic energy issues and their legislative options collectively, as a whole. Among the several comprehensive congressional proposals, the most prominent were the congressional majority proposals, a joint House and Senate economy-energy statement issued by the Democratic majority leadership on February 27, 1975, and a similar composite energy program announced by the Democratic members of the House Ways and Means Committee on March 3, 1975. (See appendix II for a tabular summary of the main provisions of these administration and congressional proposals.) The enactment of the Energy Policy and Conservation Act of 1975, Public Law 94-163, defining the initial area of national consensus on energy policy, confirmed the usefulness of this new approach.

Repeal of the depletion allowance.—After sixty years in which this provision was a key factor in the U.S. petroleum industry's exploration, production and pricing policies, Congress repealed the 22 percent depletion allowance in its entirety for all major oil and natural gas producers, identified as those producing more than 2,000 barrels of oil per day, or 12 million cubic feet of natural gas per day, postponing its abolition for independent companies who do not have retail outlets and produce less than these amounts, on a graduated schedule until 1984.

While a number of major companies announced that removal of the depletion allowance would require reconsideration and reduction in their capital investment plans, there is some indication that the reductions would take place in projected capital ventures other than exploration and investment in developing new energy supplies.

Whatever the role of the depletion allowance has been in the past, its recent repeal clears the way for a fresh look at oil and other fossil fuel production incentives whose effectiveness as stimulants to increased domestic production can be more easily measured and identified.

Quantitative restrictions as a major energy policy management approach.—Perhaps the most unique feature of the congressional energy initiatives during this period has been the emergence of the use of quantitative limits as a major management tool in conserving energy, redirecting demand and stimulating increased production. This approach is a distinctive alternative to the administration's heavy reliance on a market oriented approach.

Four key bills have incorporated quantitative control concepts of this type: The House Ways and Means energy bill, H.R. 6860, approved June 19, 1975, would place quantitative limits—subject to some flexibility—on the volume of crude oil and oil products which could be imported. A quantitative ceiling on the volume of gasoline which may be consumed, which was included in the Energy Policy and Conservation Act as it passed the House, was dropped in conference. However, the bill as enacted retained discretionary authority to impose direct controls on refinery operations to limit the production of gaso-

line. It also extended the authority of the Federal Energy Administrator to compel powerplants and other industrial fuel burning installations to convert to the use of domestic coal.

The Senate national petroleum and natural gas conservation and coal substitution bill, S. 1777, and the National Energy Production Board bill, S. 740, both of which have been targeted by the congressional leadership for action during the second session, are oriented toward quantitative limitation concepts. The coal substitution bill would limit the number of oil- and gas-fired powerplants and industrial boilers to those existing now and would require them to convert to coal by 1980; and require all new powerplants and industrial boilers to be capable of burning coal and to convert to coal by 1985. The National Energy Production Board, to be patterned after the War Production Board of World War II, would be charged with establishing quantitative energy production goals and programs whose priority claims on scarce materials and capital would have the effect of placing quantitative limits on all less essential claims on energy and materials.

What is unique is that these particular ceilings are set in volumetric, not percentage terms. Even the long-standing mandatory oil import control program did not have limits fixed in quantitative volumetric terms. The formula used in the mandatory oil import control program, in force between 1959 and 1973, was intended to limit U.S. imports to a more or less fixed proportion of U.S. production. A crude oil-oil products import level was set initially at a little over 12 percent of estimated U.S. consumption. After 1963, the quota was calculated at about 12 percent of U.S. production. However, the pressure of increasing U.S. demand for oil products coupled with flattening domestic U.S. petroleum production induced exceptions and adjustments in the program to such a degree that by March 1973, just before the President removed the mandatory oil imports quotas, foreign crude-product imports totaled 6,575,000 barrels a day (3,162,000 in crude and 3,413,000 in refined petroleum products) as compared with 9,175,000 barrels a day of crude from domestic production.

Enactment of legislation setting a quantitative ceiling on oil imports would mark a major change in U.S. oil policy and require significant conservation in the use of oil and a shift to other fuels.

The following summary describes energy legislation enacted and pending in the 94th Congress about one quarter through the second session, under the following general functional topics:

I Measures to protect against interruptions in energy supply.

II Measures to restrain and redirect the use of energy.

III New oil and natural gas management measures.

IV Measures intended to encourage increased production of other energy supplies.

V Measures designed to reduce dependence on foreign oil.

Since, as acknowledged by the President, the recently enacted Energy Policy and Conservation Act now "puts into place the first elements of a comprehensive national energy policy,"¹ each section begins with the appropriate measures from that act, followed by other enactments and pending legislation. These are also listed, together with the reference House and Senate report numbers and dates of passage, in Appendix III.

¹ Presidential Statement on Signing P.L. 94-163, Dec. 22, 1975.

I. MEASURES TO PROTECT AGAINST INTERRUPTIONS IN SUPPLY

The continuing heavy dependence on imported oil coupled with declining domestic production has heightened the importance of reaching early agreement on and enactment of special measures to protect against another interruption of imports such as that produced by the Arab embargo. The principal measures designed to provide such protection—development and production of oil from the naval petroleum reserves and standby allocation, rationing and other emergency energy conservation measures—were enacted in the Energy Policy and Conservation Act, Public Law 94-163.

A. NATIONAL STRATEGIC PETROLEUM RESERVES

A logical counterpart to continued dependence on oil imports, even at a decreasing rate, is the creation of some kind of strategic reserve capability to be drawn on in the event of serious interruption or depletion of supply. In the United States the petroleum industry has in the past maintained inventories of less than 40 to 50 days supply to deal with seasonal demands and operating requirements. However, this is only normal working inventory and cannot by any means be said to constitute a reserve capability.

In developing a reserve capability, there are two basic options open: Oil can be bought and stored in salt domes and tanks or developed in place and then shut in, to be drawn on when needed.

Both of these options are provided for in the new omnibus energy act.

Title I, part B of the Energy Policy and Conservation Act provides for a system of national strategic petroleum reserves.

A strategic petroleum reserve would be established for storage of up to 1 billion barrels of petroleum products and not less than 150 million barrels within 3 years of enactment. The purpose of the reserve is to reduce the impact of petroleum product supply disruptions and to carry out obligations under the international energy program. An early storage reserve is also established to meet near-term emergencies.

A plan for the reserve is to be prepared and transmitted to Congress by December 15, 1976. Within 7 years the volume of crude oil in the reserve is to be equal to the total volume of crude oil imported during a base period, within 18 months 10 percent, within 3 years 25 percent, and within 5 years 65 percent. In this section the reference is to crude oil rather than to petroleum products. No limitation is placed on cost and siting of the reserve or related facilities, although this and several other considerations are to be included in the strategic petroleum reserve plan. The impact of the acquisition of such large amounts of petroleum on world market prices and on competition within the petroleum industry is to be taken into account.

An industrial petroleum reserve may also be established with up to 3 percent of the oil imported or refined being placed in storage.

A regional petroleum reserve for each FEA region in which demand for residential fuel oil and other products exceeds 20 percent of the demand for the preceding 24 months is also established for each FEA region with such deficits. Authority is given to the Administrator of FEA to implement the reserve by storing crude oil produced from Federal lands including the naval petroleum reserves, royalty oil, and oil purchased or received in trade. Drawdowns would be permitted only in accordance with the distribution plan.

Section 162 of the Act, entitled "Coordination with Import Quota System," anticipating future enactment of the import quota proposed in H.R. 6860, provides an exemption from any quantitative restrictions for petroleum products imported into the United States for storage in the Strategic Petroleum Reserve.

Development of Petroleum Reserves on Public Lands (H.R. 49) which passed the House July 8, 1975, is in conference with S. 2173, which passed the Senate July 29, 1975. For more than a half century, the United States has maintained Naval Petroleum Reserves in Elk Hills and Buena Vista, Calif. and in Teapot Dome, Wyo. Recently, a fourth naval petroleum reserve in Alaska was created. These deposits of crude petroleum had been designated for the use of the Navy in the time of national emergency when sufficient supplies of foreign or domestic petroleum products could not be assured. Both Houses were agreed that some production from these reserves ought to begin.

The House bill directs production to commence from the Wyoming and California reserves. The crude oil would then be sold on the open market, with the proceeds from such sales to be directed toward increasing production capacity at the reserves and toward purchase of oil in the open market to construct a national petroleum reserve for commercial and private, rather than military, use.

B. GENERAL STANDBY EMERGENCY AUTHORITIES AND RESPONSIBILITIES

The new law requires the President to transmit to Congress, within 180 days after the date of enactment of this legislation, one or more energy conservation contingency plans and a gasoline rationing contingency plan. Additional such plans could be submitted at any time. No such contingency plan could become effective unless it was approved by a resolution passed by each House of Congress within the first period of 60 calendar days of continuous session of Congress after such transmittal, in accordance with procedures for expedited congressional review. No such approved plan could be put into effect unless (1) the President found that a severe energy supply interruption required such implementation, and he transmitted to Congress a request to put such plan into effect, and (2) neither House of Congress disapproved such request within the first period of 15 calendar days of continuous session of Congress after such transmittal. Such an approved plan could be put into effect without such additional review by Congress if and to the extent that the President determined, during a "7-percent shortfall period" that such implementation was necessary to meet the obligations of the United States under the international energy program. A "7-percent shortfall period" was defined as a period commencing on a date when the President determined countries who are parties to the international energy program have sustained a reduction in oil

supplies equal to at least 7 percent of average daily consumption during the base period and ending 60 days after the date on which he finds this condition no longer exists.

An energy conservation contingency plan is defined as a plan which imposed restrictions on the public or private use of energy which were necessary to reduce energy consumption. No such plan could provide for the imposition of gasoline rationing or any tax, tariff, user fee, or minimum price for any petroleum product or for any credit or deduction in computing any tax. Energy conservation contingency plans could remain in effect for the period specified in the plan up to 18 months. States or political subdivisions could be exempted from an energy conservation contingency plan if the President determined that a comparable program or special circumstances exist in that jurisdiction.

C. GASOLINE RATIONING CONTINGENCY PLAN

The new law requires the President to prescribe a gasoline rationing contingency plan, as part of the regulation under section 4(a) of the Emergency Petroleum Allocation Act of 1972. As amended by the bill such a plan must provide for the establishment of a program for the rationing and ordering of priorities among classes of end users of gasoline and for the assignment of rights entitling certain classes of end users to obtain gasoline in precedence of other classes. No gasoline rationing contingency plan could be put into effect unless (1) the prerequisites for implementation of an energy conservation contingency plan were satisfied, and (2) the President determined that, without such rationing plan, all other practicable and authorized methods to limit energy demand were inadequate to achieve the objectives of section 4(b) of the Emergency Petroleum Allocation Act. The President is directed to make appropriate adjustments in the petroleum allocation program in furtherance of a gasoline rationing contingency plan which is in effect. The President is directed to provide for the use of local boards (whose composition reflected the community as a whole) of States or their political subdivisions to receive petitions from end users of gasoline and to order reclassification or modification of any determination made with respect to the end users' rationing priority or entitlement. No gasoline rationing contingency plan could impose a tax, provide for a tax credit or deduction, or impose any user fee except to cover administrative costs. A gasoline rationing plan could remain in effect for up to 18 months.

It is indicative of the extreme reluctance Congress has shown in respect to authorizing consumer end user rationing that, although the President is permitted to order any other approved contingency plan to be put into effect in the case of an extreme interruption in energy supply without again obtaining congressional consent, the gasoline rationing contingency plan is an exception to this authority and must be first resubmitted to offer Congress an opportunity to indicate disapproval.

D. ALLOCATION OF PETROLEUM AND PETROLEUM PRODUCTS

Title IV of the new act, which includes the revisions on pricing policy described in section III below, continues the entitlements program and the allocation provisions of the old Emergency Petroleum Alloca-

tion Act of 1973, with a few additional provisions and authorizes conversion of the allocation authorities to standby status. Allocation authority, whether standby or not, is extended through September 30, 1981.

New discretionary authority is provided under which the President may "require adjustments in the operations of any refinery in the United States with respect to the proportions of residual fuel oil or any refined petroleum product" if this is necessary to assure adequate volume of any priority product in the event of shortages. The bill omits a House-passed mandatory ceiling that would have limited the consumption of gasoline to the level of 1972-74 and would have further reduced consumption by 2 percent per year for each of the next 3 years.

He may also require maintenance of up to 90 days' inventory of crude or oil products at any stage from production through distribution, except that no one is required to make physical additions to their existing storage capacity in order to comply.

E. AUTHORITIES WITH RESPECT TO INTERNATIONAL ENERGY PROGRAM

International oil allocation and voluntary agreements.—The President is authorized to require that the energy industry make arrangements to meet U.S. obligations in the international allocation of petroleum products. Such action would be immune from the antitrust laws. The Attorney General and the Federal Trade Commission are to be involved in the development of agreements and plans to propose alternatives which would avoid or minimize anticompetitive effects. Reports to Congress are to be made by both agencies every 6 months. Authorization is also provided for the establishment of an advisory committee. Exchanges of information are also authorized, except for material considered proprietary or trade secrets, unless the President certifies that it will not be disclosed because of adoption of adequate security measures by IEA. This information is to be transmitted only if other countries are supplying comparable data.

II. MEASURES TO RESTRAIN AND RESHAPE ENERGY DEMAND

The following sections summarize briefly some of the legislative and other action to date on (a) improved auto fuel efficiency measures, (b) State energy conservation program assistance and other consumer product conservation measures; (c) modification of buildings to conserve energy; (d) industrial conservation measures and (e) encouragement and improvement of mass transportation transit facilities to conserve gasoline. New legislation recently introduced to launch a greatly expanded and more comprehensive energy conservation approach is described in section (f) below.

A. AUTOMOTIVE FUEL ECONOMY

The private automobile occupies a central place in the American lifestyle and economy. Consumption of gasoline to fuel that lifestyle accounts for almost 40 percent of the total demand for oil products in the United States and, prior to the Arab embargo in October 1973, it was anticipated that gasoline consumption would probably continue to rise at the rate of more than 5 percent annually for the country as a whole. Measured in its equivalent of barrels of oil per day, motor gasoline was being consumed in February 1976, at the rate of 6.5 million barrels of oil per day and being consumed in cars which had been increasing in weight, air-conditioning and gadgetry and had decreased in fuel mileage efficiency. The 1958 model year cars averaged about 14 mi/gal. This had dropped to a low for the 1973 model year average of only 11.6 mi/gal. A joint EPA-Department of Transportation study published in October 1974 ("Potential for Motor Vehicle Fuel Economy Improvement: Report to Congress") estimated 1974 model year average fuel efficiencies as 14 mi/gal. and 1975 model year efficiency at 15.9 mi/gal., a 13.5-percent improvement in 1 year.

A promising area for substantial gasoline savings without sacrificing mobility appears to be in retooling car designs to obtain greater mileage per gallon of gasoline. Allowing for gradual attrition and junking of old models—and no net increase in total number of cars—a requirement that all new models be built to run 24 miles a gallon could cut gasoline consumption in half by 1985 without drastic change in lifestyles. Additional fuel economy can be obtained by using radial tires, or shifting to the use of electric highway vehicles.

The new Energy Policy and Conservation Act (P. L. 94-163) requires that the average fuel economy for passenger automobiles manufactured after the 1977 model year must be no less than 18 mi/gal in 1978, 19 mi/gal in 1979, 20 mi/gal in 1980 with future increases to be set by the Secretary of Transportation at the maximum feasible level. By 1985 the standard is to be 27.5 mi/gal. Each year the Congress is to review these levels and to determine the ability of the industry to meet the 1985 levels. Manufacturers of less than 10,000 automobiles per year may be exempted. Any manufacturer may

apply for modification of its average fuel economy standard. Each manufacturer would be required to attach to each automobile a label indicating its fuel economy, the estimated annual cost of operation, and the fuel economy range of comparable automobiles. This section is very similar to a comparable provision in H.R. 6860, which is still pending.

If a manufacturer or importer fails to meet the required average fuel economy standard, he would be liable for a civil penalty, which could be waived or modified under certain conditions. Conversely, if a manufacturer exceeds the fuel economy standard, he would be entitled to a credit of \$5 for each extra one-tenth of a mile per gallon multiplied by the number of units manufactured to be applied to future model years. The penalty for noncompliance would be calculated the same way, plus an additional \$10,000 per day for the duration of the violation period. A program to test the fuel economy improvement potential of retrofit devices would also be initiated.

Electric Vehicle Research Development and Demonstration Act (H.R. 8800) passed the House September 5, 1975. This bill directs the Administrator of the Energy Research and Development Administration to initiate and provide for the conduct of research and development in areas related to electric and hybrid vehicles. It also directs the Administrator to enter into contracts for the production of significant numbers of urban passenger and commercial vehicles which have electric propulsion systems on conventional chassis; and for the production of significant numbers of urban passenger and commercial vehicles which are specifically designed for electric propulsion as the primary power source. Finally, this bill directs the U.S. Postal Service, General Services Administration, Secretary of Defense, and the heads of other Federal agencies to arrange for the introduction of electric and hybrid vehicles into their fleets as soon as possible, and provides for guaranties of loans made to small businesses for commercial development of electric and hybrid vehicles.

H.R. 6860, the Energy Conservation and Conversion Act, which passed the House June 19, 1975, and is being readied for floor debate in the Senate, includes generous tax credits for the purchase of electric highway vehicles and radial tires. Radial tires improve the mileage obtained by automobiles by between 3 and 5 percent, but they are more expensive than other types. To reduce the price differential and encourage greater use of these tires, the bill repeals the present excise tax of 10 cents per pound on radial tires (about \$3 per tire).

On June 13, 1975, the House approved by a standing vote of 73 to 31 an amendment to H.R. 6860 which would provide a tax credit of up to \$750 (25 percent of the first \$3,000 cost) for the next 3 years to those who buy electric cars for highway use. It was argued that this would help sell 50,000 vehicles that "guzzle no gas."

A Senate bill, S. 1518, approved on June 5, 1975, in the Senate and on January 22, 1976, in the House, would also amend the Motor Vehicle Information and Cost Savings Act (Public Law 93-492) to incorporate within it "a concern for fuel efficiency of motor vehicles." This concern takes the form of authorizing for appropriation \$5 million for fiscal year 1976 and additional amounts totalling \$16,500,000 in subsequent years through September 30, 1978, in order to set up diagnostic inspection demonstration projects with a capacity

to determine a car's fuel efficiency capability as well as whether it meets emission standards. Citing the cost benefits which would be associated with enforcement of mandatory standards (which the bill does not set, but which development of diagnostic equipment would help enforce), the report (S. Rept. 94-155) stated:

The most recent study on air quality and emission controls done by the National Academy of Sciences has determined that the societal loss due to auto emissions is between \$2.5 billion and \$7 billion per year.

The Environmental Protection Agency data indicates that emission tune ups could save as much as 375,000 barrels of crude oil per day nationally.

On the cost side, the States of Pennsylvania and New Hampshire which currently have the most comprehensive inspections, charge about \$4.65 for the inspection. Several studies have been conducted to determine the costs associated with States owned and operated lane type inspection facilities. One study concludes that separate safety and emissions inspection facilities are significantly more expensive than multipurpose facilities combining safety and emissions inspection under one roof. Where a comprehensive approach is taken, the study concludes that fees between \$2 and \$6 are feasible depending on the level of inspection.

During Senate hearings on Clean Air Act amendments in July 1975, the point was brought out that since air pollution standards are set for each individual pollutant, it is possible to change or relax standards for one pollutant until technology is further improved but still maintain existing standards for another pollutant. This is well illustrated in the case of current auto emission control requirements: There seems to be general agreement that the use of a catalytic converter to abate carbon monoxide and hydrocarbon emission levels in conformance with existing standards will not exact a fuel penalty and therefore levels for those particular pollutants would not necessarily have to be changed. However, a fuel penalty is likely to be exacted if the requirement to abate nitrogen oxide standards to currently required levels would be allowed to stand.

B. STATE ENERGY CONSERVATION PLANS AND CONSUMER PRODUCT CONSERVATION MEASURES

The new law, Public Law 94-163, authorizes a \$150 million Federal grant-in-aid program (\$50 million in each of 3 years beginning in fiscal year 1976) to assist States in developing and administering State energy conservation programs. These programs will have as a target a 5-percent reduction in energy consumption by 1980 below levels projected for that time. The legislation identifies conservation measures to be implemented by the States, but calls for administration of the programs on the State and local levels. State programs would include the following energy conservation measures:

- Lighting efficiency standards and restriction on hours of public buildings;

- Programs to promote carpooling, vanpooling, and public transportation systems; and

- Energy efficiency and insulation requirements for new and remodeled buildings.

Within these Federal guidelines, States would establish conservation programs in a manner tailored to local economic geographic and climatological conditions. This legislation thus provides impetus, direction, and financial assistance for energy conservation while protecting the States interest in self-determination and local control.

The new Energy Policy and Conservation Act would also require test procedures for an energy efficiency labeling of major home appliances and certain other consumer products using more than 100 kwh per year. This information is essential to consumers in making an informed judgment in the purchase of appliances. The label must include representative annual operating costs associated with the use of these products unless the FEA determines that labeling would not be feasible or would not be likely to assist consumers in making purchasing decisions.

If the FEA prescribes a labeling rule for a class of major household appliances and then finds (1) that labeling will not suffice to induce manufacturers to produce (or consumers to purchase) products of that class which achieve the maximum energy efficiency which is technologically feasible, and (2) that the benefits of increased energy efficiency outweigh any increased consumer costs and any decrease in utility of the product, the FEA is authorized to prescribe an energy efficiency performance standard for that class of product. The FEA would be required to exercise this authority in certain cases where industry is unable to achieve energy efficiency improvement targets which would be set by the FEA for major home appliances. These targets would be set at the maximum level which would be economically and technologically feasible, and would require at least a 20-percent overall improvement in energy efficiency for new major home appliances in 1980, in comparison to 1972 levels.

C. MODIFICATION OF BUILDINGS TO CONSERVE ENERGY

Almost coequal with transportation as a major consumer of total energy in the United States is space conditioning of residential and commercial buildings. About 12 percent of total energy is used for residential heating and cooling and 9 percent for similar commercial uses. When heating and cooling of industrial buildings is added, more than 25 percent of all the energy used in the United States is consumed in heating and cooling the buildings where people live and work.

The only provision in the new law, other than what might flow from State conservation plans, which directly affects the critical energy savings area of building standards may be found in title III, part E, which deals with Federal energy conservation measures. All Federal agencies would be required to develop a 10-year plan for energy conservation. This plan would deal with lighting standards, construction guidelines, restrictions on hours of operation, thermostat settings and other conditions related to the operation of Federal buildings.

Title X of the Administration bill (S. 594/H.R. 2650) would establish mandatory thermal (heating and cooling) efficiency standards for all new homes and commercial buildings to be developed, discussed, reviewed and promulgated over a period of about 4 years before becoming mandatory. It was anticipated that this program would save the equivalent of 500,000 barrels of oil per day in 1985. The Secretary of Housing and Urban Development in consultation with engineering, architectural, consumer, labor and industry representatives would be responsible for developing thermal efficiency standards. Standards for

residential dwellings would be promulgated and implemented within 1 year, and performance standards for commercial and other residential buildings developed and implemented as soon thereafter as practicable. State and local governments would assume primary responsibility for enforcing standards through local building codes.

In addition, title XI of S. 594 would establish, within the Federal Energy Administration, a grant program for States to assist low income persons, particularly the elderly, in winterizing their homes. Title XI is modeled after a successful pilot project that was conducted in the State of Maine during 1974. Annual appropriations of \$55 million would be authorized to fund the 3-year grant program, and enable States to purchase winterization materials for dwellings of low-income persons.

The Ways and Means bill, H.R. 6860, pending in the Senate, includes several measures designed to speed up the conservation of energy in this consumption sector. As summarized in the committee report (H. Rept. 94-221), these include:

Tax credit for home insulation. An important way to conserve energy is to install such energy-saving items as insulation, storm windows, and thermal glass in homes. To encourage a major effort during the next 3 years, your committee has included in the bill a 30-percent tax credit for up to \$500 of expenditures on insulation, storm windows, and similar energy-saving items for principal residence. The maximum credit, then, would be \$150. It is expected that this tax credit will save between 50,000 and 100,000 barrels of oil per day by 1985.

Tax credit for residential solar energy equipment. Eventually, solar energy will have to become a major source of energy, since the Sun is one of the few non-depletable resources. To stimulate a more rapid development of solar energy, your committee has included a tax credit for homeowners who install solar heating or cooling equipment. The credit is to be 40 percent on the first \$1,000 of such expenditures and 20 percent on the next \$1,000, so that the maximum credit is to be \$600. While probably only several thousand households will actually make use of this tax credit, so that the revenue loss will be minimal, these homeowners will be the vanguard of the shift to alternative sources of energy.

Investment credit for insulation and solar energy equipment. As noted above, a new tax credit is provided for insulation and solar energy equipment for homeowners and tenants. In the case of businesses, the investment credit is made applicable through 1977 for insulation and through 1980 for solar energy equipment. These investments are not now eligible for the investment credit, because they are considered to be parts of the building or its structural components. At the same time, the investment credit is removed from room air-conditioning units and space heaters, which are less efficient than central units. Central units do not receive the credit because they are part of the building and not equipment.

In initial votes on these provisions on June 13, 1975, the House retained the tax credit for insulation and, by a vote of 244 to 132, raised the solar energy credit to 25 percent of the first \$8,000 of cost. The House also extended residential solar energy credit to equipment meeting "interim" rather than "definitive" HUD standards and allowed credit for solar installations shared by several houses.

Incorporating many of these provisions, the Energy Conservation in Buildings Act (H.R. 8650) passed the House September 8, 1975, and the Senate March 9, 1976. This bill provides grants to the States to assist low-income home-owners in insulating their residences properly and calls upon the Federal Government to establish insulation efficiency standards for commercial and residential structures built in the future.

The energy conservation in buildings bill authorizes \$55 million in grants to the States over the next 3 years. Such grants in conjunction with State funds would be used to purchase housing insulation ma-

terials. The insulation would be provided to low-income homeowners through local agencies with the General Accounting Office supervising the implementation of the program.

Local building codes and standards vary greatly throughout the United States. This bill authorizes the Secretary of Housing and Urban Development, after consultation with other Federal officials, to formulate fuel efficiency standards for new building construction throughout the United States. The Secretary is directed to set such guidelines for commercial buildings no later than 18 months after the passage of the act, and no later than 3 years after the passage of the act for residential buildings. Recognizing the diversity in local building codes, regional climatic variations, and differing cost benefit analyses, the House bill permits such factors to be considered in drafting the energy conservation standards.

D. INDUSTRIAL CONSERVATION MEASURES

The industrial sector consumes about 40 percent of the U.S. energy budget. It has been estimated that up to 30 percent of industrial energy consumption is wasted. Industrial energy consumption patterns are extremely complex and are affected by choice and availability of fuel type and costs, raw materials, state of the economy, and type of industrial processing. Because of the complexities within the industrial sector, it is difficult to reasonably define baseline energy consumption conditions on which to found regulatory or incentive measures considered in the building and transportation sectors.

The new energy law, Public Law 94-163 (title III, part D) has as its goal in industrial efficiency to increase the national average industrial energy efficiency by the maximum feasible amount by January 1, 1980. The Energy Policy Act recognizes that industry must share responsibility for attaining the goals of energy independence and wise utilization of scarce resources. The Project Independence Blueprint estimates that the energy equivalent of 400,000 to 600,000 barrels of crude oil per day can be saved in the industrial sector in the 1980's.

Industrial energy efficiency targets would be set for the 10 most energy-intensive industries. Each target would represent the maximum possible improvement in industrial efficiency which a particular industry could achieve by January 1, 1980. The 10 most energy-intensive industries would be required to report annually on their programs in attaining energy-efficiency targets.

The new law also includes measures which would serve to conserve oil and natural gas by requiring certain industrial plants to convert to coal. For convenience, these are described along with other measures relating to coal in section IV-A below.

E. IMPROVED TRANSPORTATION SYSTEMS

Use of railroad and other mass transit facilities is recognized as a major potential source of fuel savings enabling conservation of gasoline otherwise used for personal transport use and more efficient use of other motor fuels. However, it is also increasingly realized that until improved mass transit is actually in place and available, it cannot serve to divert present auto users from reliance on personal transport.

During the 1st session of the 94th Congress, the following bills were either enacted into law or had passed one or both Houses:

Public Law 94-5, approved February 2, 1975, authorizes an additional \$347 million to insure the continuation of essential rail services in the Northeast and Midwest under the regional Rail Reorganization Act (P.L. 93-236); increases from \$85 million to \$282 million Federal grants to bankrupt railroads in the Northeast and Midwest to keep them in operation until a plan being developed by the U.S. Rail Association becomes effective; increases from \$150 million to \$300 million loan guarantees to bankrupt railroads to maintain and improve rail facilities until the new system is in operation and gives the Secretary of Transportation more flexibility in deciding how and when the guarantees will be used.

An Amtrak Supplemental Authorization (S. 852/H.R. 4975), which passed the House April 24, 1975, and the Senate on May 13, 1975, provides a \$63 million supplemental authorization for fiscal year 1975, of which increased operating costs due to inflation accounted for about \$50 million. It was signed as Public Law 94-25 on May 25, 1975.

H.R. 8365, making transportation appropriations for fiscal year 1976 and the transition period, totaling \$10.8 billion and \$2.7 billion respectively, passed the House on July 10 and the Senate, amended, on July 25, and was signed November 24, 1975 as Public Law 94-134. Included in these amounts were \$439 million for Amtrak, of which \$110 million is for capital costs, which for the first time are being funded by a direct Federal grant.

The Rail Services Act of 1975 (S. 2718), a comprehensive railroad rehabilitation program, was signed as Public Law 94-210 on February 5, 1976. It includes \$6.1 billion in new funding for railroad assistance, about \$1 billion less than the amount in the bill as originally cleared by the conference committee.

The key change agreed to in the second version involved funding for improved railroad passenger service in the Northeast Corridor between Washington, D.C., and Boston. That authorization was reduced to \$1.846 billion from \$2.4 billion in the bill as originally approved. Another cut was made in funding for subsidies to continue operations of light-density branch and commuter railroad lines scheduled for abandonment. The total subsidy was reduced to \$495 million from \$525 million.

Other authorizations included in the compromise bill sent to the President were:

Loans of \$2.1 billion for the Consolidated Rail Corporation (ConRail), the quasi-governmental agency that was to take over the operations of the Penn Central and other bankrupt Northeast and Midwest railroads.

Aid of \$1.6 billion to railroads outside the ConRail system.

For passenger service outside of the Northeast Corridor, \$20 million.

For a study and plan for the conversion of abandoned railroad rights-of-way to recreation and conservation use, \$20 million, and \$20 million for other miscellaneous studies.

To establish a rail bank for fossil fuel and agricultural production purposes, \$6 million.

The final bill also would set up a finance committee on the Board of the U.S. Railway Association (USRA), the agency created in 1973 to draft the plan for reorganizing the Northeast railroads. The finance committee, composed of the Secretary of the Treasury, the

Secretary of Transportation, and the USRA Board Chairman, would oversee the funding of ConRail and could terminate or modify its financing.

The bill would give the House and Senate the final word on ConRail funding since either Chamber could disapprove an action of the finance committee within 30 days from the date it was made.

Also for the first time, the House voted to amend a provision of the Federal Highway Act of 1973 (in H.R. 8235, passed House, Dec. 18, 1975) that allows urban areas to use their interstate funds from the Highway Trust Fund for mass transit, to permit those funds in the future to be used for other urban highways as well. By granting this new flexibility to urban areas, the bill promotes a more efficient urban transportation planning.

This legislation also gives Congress more flexibility in deciding future transportation policy with a view of possibly ending or reducing the Highway Trust Fund in favor of other transportation means.

The Senate tried, unsuccessfully, to add a \$700 million allotment to repair thousands of miles of railroad track, first, to the \$5.3 billion emergency jobs appropriations bill (H.R. 4481), and, second, to the fiscal year 1975 supplemental appropriations bill (H.R. 5899), losing out in conference.

The rationale—that of linking expenditures to decreasing present unemployment and to link a full-employment goal with increased energy savings and increased domestic energy production—is a key element in the longer term Senate proposal for a National Energy Production Board, described below.

F. A COMPREHENSIVE CONSERVATION INITIATIVE

A major new bill, the Energy Conservation Act (S. 2932), introduced February 5, 1976, contains three principal features:

(a) A package of Federal loan guarantees not to exceed \$10 billion at any one time for financing energy conservation improvements, with priority for homes and small business, including farms. Industrial energy users not able to obtain financing from commercial sources could also qualify for guaranteed loans. Interest rates subsidies for residential consumers and small businesses are provided to reduce the lending rate to 5 percent with not more than 20 percent of the loans to be subsidized at a rate of 2 percent.

(b) Use of State governments as agents of the Federal Government in preparing and carrying out State energy conservation implementation programs to provide consumer information, energy audits, loan procedures, and installation of energy conserving materials; and

(c) A Federal grant-in-aid program of \$50 million annually for 4 years to assist States in designing and carrying out their State energy conservation implementation programs.

Loans will be made solely for the purpose of reducing the amount of energy used in residential, commercial and public buildings and in manufacturing plants and small businesses. Only permanent improvements, such as insulation, storm windows, solar energy equipment, revamping of ventilation systems, heat pumps, and heat exchangers, can qualify for federally guaranteed loans. Also, loans must be repaid with the projected savings that are realized over the life-cycle of the energy conserving facilities.

It is anticipated that savings the equivalent of 2 million barrels of oil per day could be achieved within 4 years if programs which could be supported by this legislation were actively pursued.

III. NEW OIL AND NATURAL GAS MANAGEMENT MEASURES

Two major legislative measures enacted or still under debate on this key energy goal are: (1) Removal of the depletion allowance for oil and gas and adjustment of selected foreign tax credits; and (2) the use of price policy as a primary stimulus for increased production, including decontrol of prices of both oil and natural gas and related offsetting provisions to manage windfall profits.

Abolition of the depletion allowance, which for 60 years has been a key feature in the U.S. petroleum industry's production and pricing policies, is a landmark event, the consequences of which for both energy investment and price have not yet been fully identified. Enacted as part of a tax reduction bill intended to stimulate the economy, removal of the depletion allowance eliminated what had traditionally been thought of as a prime incentive to encourage increased investment in oil and natural gas while at the same time permitting reasonably low domestic prices for their end products in the United States.

Higher prices as incentives to increase domestic production of oil and natural gas have been generally conceded as desirable for some time—but the sudden escalation in prices for oil produced abroad precipitated the only recently resolved national debate over what the level should be and under what kind of regulatory or other oversight controls.

The oil pricing provisions included in the new Energy Policy and Conservation Act, Public Law 94-163, which provide for phased and controlled upward revisions in domestic oil prices, represent the first major national decision on the still volatile energy pricing issue. Similar difficult decisions and compromise will be required to reach a national consensus on the pending natural gas deregulation bills.

In addition to these two still controversial moves, a number of measures are underway which are intended to revise the terms on which oil and natural gas are leased and developed on public lands, including the Outer Continental Shelf. These are also summarized in this section.

A. REMOVAL OF THE DEPLETION ALLOWANCE AND CHANGES IN SOME FOREIGN OIL TAX CREDITS

Historically, the primary congressionally endorsed stimulus to domestic production of oil and natural gas was the depletion allowance. Beginning with the first income tax law in 1913 and modified as a flat percentage level in 1926, the depletion allowance permitted subtraction of 27.5 percent of gross income from production of oil and gas at the wellhead, in recognition of the fact that extraordinary capital costs and risks were involved in exploration and development of oil to replace that depleted by each year's production. The allowance was a flat deduction and did not include any mandatory requirement that it would in fact be invested in new exploration and development of oil.

Oil had quickly been realized to be a much more convenient and mobile substitute for coal and certainly a much more desirable fuel for military use, and successive Congresses developed supporters for continuing the allowance, which was claimed to be a strong incentive for further investment and production. Despite opposition to it in three administrations—Roosevelt's, Truman's and Kennedy's—except for 1969 when it was reduced somewhat, to 22 percent, open support in Congress for its removal was not strong until last year.

The sudden sharp rise in the price of imported oil and the consequent astronomic increase in income and profits accruing to the U.S. industry caused an equally sharp change in attitude. A reasonably stiff bill—with a three year phase out of the depletion allowance combined with a windfall profits and investment plow-back credit—was reported from the House Ways and Means Committee May 4, 1974, but the 93d Congress adjourned before agreement could be reached on the rules under which the bill would be put to vote.

The 94th Congress came into Washington in a different mood. A strong and vocal group of Congressmen overrode more senior colleagues in the House Democratic Caucus to insist that depletion repeal be included in the tax reduction bill and won. As finally enacted, the new law, Public Law 94-12 (H.R. 2166), includes the following changes which greatly reduce the hitherto almost untouchable oil and natural gas investment incentives:

On the crucial issue of oil and gas depletion, the new law:

Repealed the 22 percent depletion allowance on oil and gas production retro active to January 1, 1975.

Retained the 22 percent allowance until July 1, 1976, for natural gas sold under federal price regulations (or until the controlled price was raised to take account of repeal of depletion).

Retained the allowance for natural gas sold under fixed-price contracts until the price was raised.

Provided a permanent small producer exemption that allowed independent oil companies to continue taking the depletion allowance on a basic daily output of oil and natural gas.

Allowed an initial small producer exemption retaining a 22 percent depletion allowance for producers with an average daily production of 2,000 barrels of oil or 12 million cubic feet of natural gas or an equivalent quantity of both oil and gas.

Reduced the daily production eligible for depletion by 200 barrels a day for each year between 1976 and 1980, leaving the small producer exemption at a permanent level of 1,000 barrels of oil per day or 6 million cubic feet of natural gas.

Reduced the depletion rate available on the small producer exemption to 20 percent in 1981, 18 percent in 1982, 16 percent in 1983 and to a permanent 15 percent rate in 1984.

Kept the depletion rate at 22 percent until 1984 for production of up to 1,000 barrels a day through costly secondary or tertiary recovery methods used to extract remaining oil and gas from wells that were mostly pumped out.

Limited the deduction taken under the small producer exemption to 65 percent of the taxpayer's income from all sources.

Denied the small producer exemption to any taxpayer that sold oil or gas through retail outlets or operated a refinery processing more than 50,000 barrels of oil a day.

Former tax breaks involving foreign income were also changed. The new law:

Limited the amount of foreign tax payments on oil-related income that an oil company could take as a credit against U.S. taxes to 52.8 percent of its 1975 income from foreign oil operations. The limit would be reduced to 50.4 percent in 1976 and 50 percent thereafter.

Allowed use of excess credits within those limits only to offset U.S. taxes on foreign oil-related income, not on income from other foreign sources.

Denied oil companies after 1975 the use of the per country limitation option that allowed a company to compute its maximum foreign tax credits on a country-by-country basis.

Required recapture of foreign oil-related losses that were deducted from income subject to U.S. taxes by taxing an equivalent amount of subsequent foreign oil-related profits as if earned in the United States (and therefore not eligible for deferral until transferred to the United States). The credit for foreign taxes on the subsequent profits also would be reduced in proportion to the amount treated as U.S. profits.

Denied the foreign tax credit for any taxes paid to a foreign country in buying or selling oil or gas from property that the nation had expropriated.

Denied the investment tax credit for drilling rigs used outside the northern half of the Western Hemisphere.

Denied deferral of taxes on half of the profits from exports of natural resources and energy products by domestic international sales corporations (DISCs).

Repealed, effective in 1976, certain existing exemptions from a 1962 law requiring current U.S. taxation of profits earned by subsidiaries set up by U.S. corporations in tax haven countries that imposed little or no taxes.

Allowed deferral of U.S. taxes on all earnings by a foreign subsidiary if less than 10 percent of its income was defined as tax haven income.

The additional revenues which would accrue to the Treasury (and, at the same time, be withdrawn from the major oil producers' cash flow) are estimated at around \$3.7 billion in 1975: About 1.7 billion by denial of the depletion allowance; some 1.5 billion by changes in the foreign tax credits; and about \$500 million by requiring that the foreign income of all multinational corporations, including the oil companies, be taxed in the year earned.

While these amounts are substantial, they are only a small fraction of the volume of capital investment in oil development in the United States which had been planned for 1975 by the oil companies before the tax changes were enacted: \$26.2 billion for the oil industry as a whole, of which \$8 billion was to be in drilling and exploration and \$2.1 billion in production.¹ Industry claims of drastic negative effect on new domestic investment of the loss of up to \$3.7 billion from these particular changes have not received much postenactment congressional sympathy, especially since there remain many writeoff and investment credit provisions under which actual development expenses can be and are being charged off as regular business costs.

An interesting aspect of the testimony and floor debate on removal of the depletion allowance was the argument that, although the intent of the original legislation providing generous percentage depletion allowances was to encourage increased exploration and development of new oil and gas supplies, in fact, the volume of such exploration over the years did not appear to be particularly related to the amount or to the level of the depletion allowance.

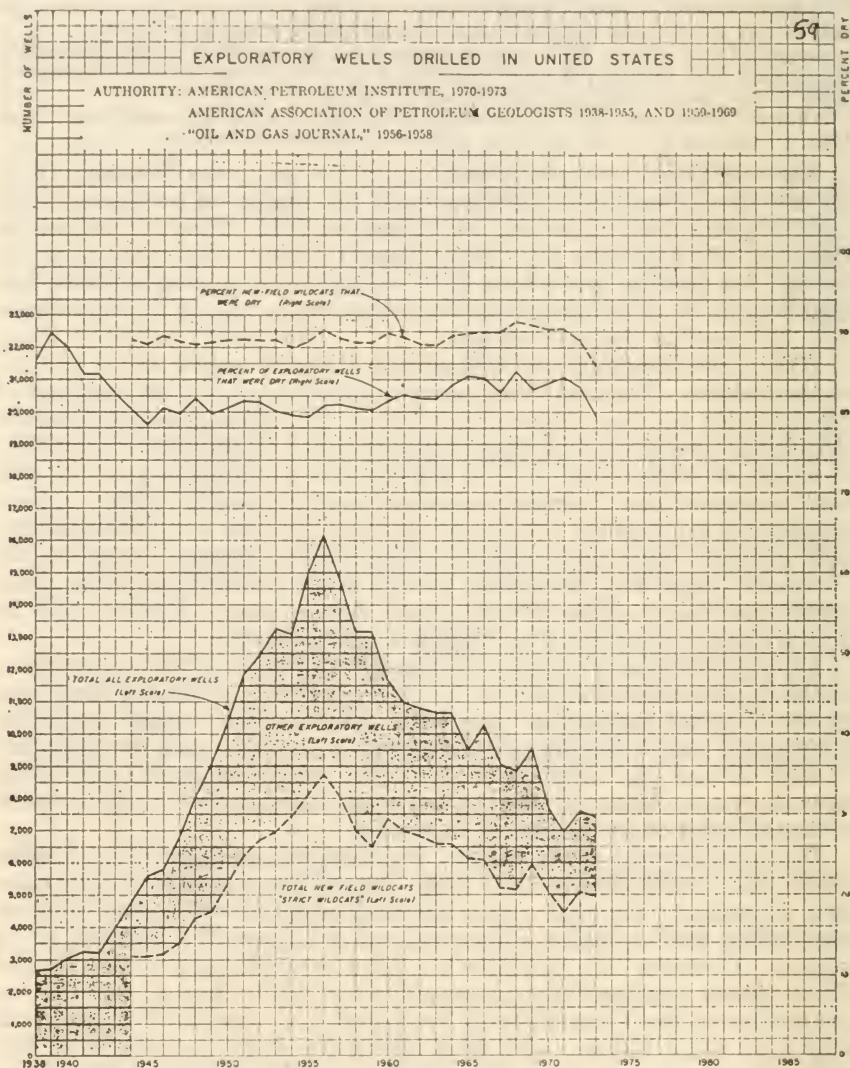
The total number of exploratory wells drilled annually in the United States has been declining since 1956, despite the existence of the depletion allowance.² The first major cut took place in the tax revisions of 1969 when the depletion allowance was cut from 27.5 percent to 22 percent. However, the industry's capital expenditures in the United States have substantially increased since 1971. Actual capital expenditures in the United States by the oil industry in 1973 were estimated at \$15.3 billion (with \$6.6 billion for drilling exploration and \$1.7 billion for production); \$21.1 billion in 1974 (with \$7.7 for exploration and \$2 billion for production) and, as mentioned above, \$26.2 billion had been estimated as budgeted for 1975 with \$8 billion tagged

¹ Oil and Gas Journal, Feb. 3, 1975, p. 37.

² See chart on p. 20.

for drilling exploration and \$2.1 billion for production. These figures do not include the hundreds of millions U.S. companies have also budgeted for projects abroad, and may be compared with total oil industry capital investment in development of oil in the United States of \$7.7 billion in 1971 and \$12.7 billion in 1972.³

While a number of major companies have announced that removal of the depletion allowance would require reconsideration and reduction in their capital investment plans, there is some indication that the reductions would take place in projected capital ventures other than exploration and investment.⁴



Source: "Twentieth Century Petroleum Statistics, 1974," Degolyer and MacNaughton, p. 27.

³ "Oil and Gas Journal," Feb. 3, 1975, p. 37.

⁴ "Energy Notes," Feb. 24, 1975, Morgan Stanley & Co., Inc., reprinted in Congressional Record, Mar. 22, 1975, p. S4804 to S4807. See also Wall Street Journal, June 9, 1975, p. 1, 25.

If industry capital investment decisions on domestic exploration programs made by the major oil firms have been based primarily on factors other than the level of the depletion allowance, its removal may not have any particularly depressant effect per se on future domestic exploration programs. In any event, 80 percent of the exploratory drilling in the United States is done by independents, for many of whom the 22-percent depletion allowance has been largely maintained for some time to come.

It is interesting that despite the repeal, exploration of oil and gas has shown an upward turn during 1975. As reported in the FEA Monthly Energy Review for January 1976:

November [1975] statistics on drilling activity presented a much brighter picture. The number of rotary rigs drilling for oil and gas reached 1,757, the highest level for November since 1961, and an increase of 10 percent over the rig count for last November. Moreover, the number of wells drilled during the first 11 months of the year (33,019) has already surpassed the number drilled during all of 1974 (31,698).

Whether the changes in foreign tax credits are sufficient to encourage a shift of exploration and development resources away from the up-to-now less costly operations abroad to the United States remains to be seen.

Whatever the role of the depletion allowance has been in the past, its recent repeal clears the way for a fresh look at oil and other fossil fuel production incentives whose effectiveness as stimulants to increased domestic production can be more easily measured and identified.

B. CONTRASTING POSITIONS ON PRICING POLICY

There are two important differences between the administration proposals and the congressional majority proposals in this energy policy field, on the face of it 180° apart: The administration wanted an oil price policy which permitted a floor but no ceiling;⁵ the majority wanted an oil policy which set a ceiling but no floor.

The administration's primary energy policy position was to rely on deregulation of the price of domestically produced oil and natural gas and its consequent effect within the domestic market to produce not only reduction in consumption of these products but also to provide the price incentive which the administration believes will result in increased supplies of oil and natural gas. Import tariffs on imported oil and oil products were intended to tilt domestic purchases of oil and natural gas toward domestically produced products and thus provide an additional stimulus for increasing domestic supplies from increasingly expensive exploration and development operations in continental and offshore U.S. sources.

In addition, it was anticipated that, as the deregulated prices approached the (at the time) concurrent costs of developing "new" energy supplies (that is, coal gasification, and/or liquifaction, oil shale, geothermal and solar), this would further encourage the shift away from oil and gas and stimulate increased private investment in these areas.

⁵ Secretary of the Treasury Simon, in discussing a minimum long-term supply price before the Ways and Means Committee on Mar. 17, 1975, said that if the depletion allowance were removed he felt the "long-term supply price" would have to be raised from a then estimated \$7 to \$8 per barrel to about \$8.40 per barrel. Hearing, transcript, p. 1665.

In contrast, the policy proposals backed by the Democratic majority, "The Congressional Program of Economic Recovery and Energy Sufficiency," issued February 27, 1975, stated on the question of price control:

We reject the fundamental premise of the President's program that the only way to achieve energy conservation is deliberately to raise the price of all petroleum products to all American consumers by heavy indiscriminate additions in taxation. The \$3 per barrel tariff on oil imports will not reduce imports; it simply will make them more costly to American consumers.

As its goal the Administration seeks a reduction of energy consumption by one million barrels per day in 1975. To achieve it, energy prices would be greatly increased, first by taxing all crude oil and natural gas and then by removing the present controls on the market price of oil and gas.

The price of energy is not determined by free forces of supply and demand but rather by the governments of the nations that produce energy. The policy question is whether the U.S. or the OPEC governments will set energy prices in this country. The Administration wishes to decontrol old oil and new natural gas, giving the control of price to OPEC and letting U.S. energy prices follow the prices established by it. . . .

The oil price control program should be modified also to create sufficient incentives to produce all oil that can be recovered economically through secondary and tertiary recovery, substantially increasing the amount of oil ultimately produced from the average field. Perhaps the most effective plan would be to include some decontrol treatment for secondary and tertiary recovery as "new" oil.

Exploiting fully natural gas potential is equally critical and the Federal Power Commission must be mandated to provide price certainty at levels high enough to reflect future costs and to eliminate regulatory delays, reducing any incentive to withhold gas because of the uncertainty over government pricing policy.

The Congressional program therefore recommends measures to reform and simplify natural gas regulation, but continue interstate price controls on old natural gas, and establish a statutory formula ceiling that reflects cost of production. This should assure that the price is high enough to encourage maximum domestic production, but still below the OPEC cartel level.

In support of its program, the administration made price deregulation proposals, both under existing executive authority and as proposed in S. 594/H.R. 2650, which would, if approved, accomplish at least five interrelated results: (1) Increase the cost of imported oil by imposing tariffs and fees, to raise its price relative to domestic oil and encourage production of domestic oil; (2) spread price increases on crude oil among all refiners by using the FEA "Old Oil Entitlements Program"; (3) decontrol the price of "old" oil; (4) decontrol the price of natural gas sold in interstate trade; and (5) establish (or authorize establishment of) a floor price for oil to insure price stability over the longer run.

These are discussed in detail in the earlier report "Highlights of Energy Legislation in the 94th Congress," Congressional Research Service. It provides additional background and a description of much of the intervening legislative action, now culminated in the new Energy Policy and Conservation Act, and will not be repeated here.⁶

C. OIL PRICING POLICY AS ENACTED IN PUBLIC LAW 94-163

The new compromise on oil pricing policy is included in title IV of the Energy Policy and Conservation Act of 1975. Although now signed into law, they remain probably the most controversial provisions of the entire act. They are controversial not so much because of the still differing views over the quantitative levels of petroleum

⁶ For a narrative account of the first 7 months see the text of this report reprinted in the Congressional Record, July 31, 1975, pp. S14487-8 and S14490.

prices but because the basic confrontation has been and remains the far more fundamental one of public versus private management of those prices.

Two Congresses have been debating this issue now for more than 2 years: Should the management of petroleum prices be left to the private producers and distributors of petroleum products and their mutual adjustments in the market or should those prices be subject to regulation by the executive within criteria laid down by Congress and closely monitored for conformance? The conference bill provides an answer which, while clearly a compromise on levels of prices, accepts and asserts a right and responsibility in management and monitoring of those prices in the market as a whole.

Pricing and related provisions

Among the many specific provisions of title IV which give effect to this substantive strengthening of public responsibility for petroleum price management are the following:

The previously floating uncontrolled price for "new", "released" and "stripper well" oil which makes up about 40 percent of all domestically produced crude oil was replaced by a ceiling to be imputed from a "maximum weighted average first-sale price" for all domestic crude of \$7.66 per barrel. As described in the Conference report, this could be as high as \$11.28 for all previously uncontrolled domestic oil, provided that "old" oil prices were continued at present levels of \$5.25. The old stripper well provisions were explicitly repealed. Old oil was re-defined as that volume of crude oil produced from a property in a month which is equal to or less than the volume produced and sold from such property in the months of September, October and November of 1975.

The President is given authority to adjust whatever prices are promulgated upward under prescribed criteria and subject to Congressional veto by as much as 10 percent a year, of which no more than 3 percent can be justified as needed to encourage additional production from difficult and high cost properties. Upward adjustments for inflation are permitted within this formula, again subject to criteria which seek to prevent undue weighting in the inflation rate from increased energy costs themselves. Even these levels can, under certain conditions, be increased if Congress agrees to the Administration's arguments.

Formal endorsement is provided for continuing the "entitlements" program, under which the various domestic and imported prices are equalized among refiners with varying access to less expensive crude. (The program was launched by FEA in January 1975 and an earlier simple extension of the Emergency Petroleum Allocation Act from February 1975 to August 15, 1975 had been premised on Congressional understanding that the entitlements program would be undertaken by FEA.)

Monitoring of prices at all levels of production and distribution would be tightened in timeliness and detail, and further audited by the General Accounting Office.

Any regulations and changes proposed are subject to Congressional right of disapproval over a period of 15 days, rather than the 5-day period provided for in the old Emergency Petroleum Allocation Act.

The President is directed to submit to Congress on February 15, 1977, an analysis of energy supply, demand and import relationships that have evolved under the Act.

The President is required to submit to the Congress on April 15, 1977, a report on the impact of anticipated Alaskan oil production levels and prices on domestic oil prices and on incentives to increase and maintain production in the lower 48 states. The President may then propose, subject to Congressional review, the exclusion of up to two million barrels per day of Alaskan production from the composite price ceiling and the establishment of a separate ceiling for this production not to exceed \$11.28 per barrel as adjusted for inflation.

The bill permits conversion of allocation authority to standby status at an early stage if the President recommends and Congress agrees; converts the oil price control authority described in the Act to standby status at the end of 40 months; provides that the standby authority terminates after five years.

The President is specifically prohibited from using any authority in this legislation to prescribe minimum prices for crude oil, residual fuel oil, or any refined petroleum product. Establishment of a "floor" price for crude oil was a policy which the Administration has urged be adopted to encourage domestic production.

New discretionary authority is provided under which the U.S. government may exercise the exclusive right to import and purchase all or any part of the crude oil, residual fuel oil, and refined petroleum products of foreign origin for resale in the United States.

In exercising this authority, the President is required to "endeavor to buy and sell without profit or loss," except that he may in individual cases sell on the basis of competitive bid any oil or oil product "at a price above or below the cost of such oil or product if, in the judgment of the President, such sales may result in progress toward a lower price for oil sold in international commerce."

Effect of price level provisions

As enacted, the substantive provisions are likely to produce little if any reduction in the composite acquisition costs for crude oil paid by domestic refiners, and consequently little if any reduction in prices to the end-use consumer.

Once the acquisition costs of imported oil (now running in excess of 4.9 mb/d of crude as compared with slightly over 8 million barrels a day from domestic crude) are equalized through the entitlements program, that averaged price could easily be \$1 to \$1.50 higher than the "weighted average first sale price" for all domestic crude of \$7.66 mandated as the new domestic price. This may be the case even after the President's \$2 import fee is removed and even if there is no additional upward pressure from companies who have withheld some \$1.4 billion allowable "banked" prices increases and who may decide to pass them through to consumers.

The conference report includes an explanation of reason why the full rollback of \$1.09 in first sale average prices of domestic crude, highlighted in the official summary, may not be reflected immediately in consumer prices and may be offset by passthroughs of banked costs. It does conclude that at least "prices will be less in future months than they otherwise would have been under the continuing of the present program."

Whatever level composite domestic-imported crude oil prices reach, the bill, if enacted, would insure that domestic crude oil prices could be maintained below the established world market prices established by the OPEC cartel.

Effect of management provisions

On the other hand, the new energy law reflects important and substantive changes which strengthen the authority for and mandate the participation of both the executive branch and Congress over a period which would extend until September 30, 1981. This does not mean that all allocation and all price controls would continue without change until that time. On the contrary, the bill provides for a shift from mandatory to discretionary authority in pricing regulations for the President 40 months after enactment, and for a much earlier shift from mandatory to standby authority for the continuing allocation regulations, if the President so recommends and Congress does not disagree.

Nevertheless, the combined effect of the pricing and allocation provisions of title IV marks an assertion of the right of public regulation and surveillance of petroleum prices and responsibility for maintaining authority to correct inequities in both price and distribution of

domestic and imported crude and refined petroleum products which is unprecedented in peacetime in the United States in a period not clearly identified as an emergency.

D. NATURAL GAS PRICING POLICIES

The Senate has passed a bill, S. 2310, which would under its emergency provisions allow certain hard-pressed interstate natural gas companies to buy gas from intrastate companies and other companies to meet the needs of high-priority consumers without regard to pricing and most other provisions under the Natural Gas Act until April 1976. It would also authorize the FEA to prohibit the use of natural gas as boiler fuel and give the President authority to allocate propane in emergencies. Under title II of the bill, effective after April, new on-shore gas may be sold at market prices. New gas from offshore wells may be sold at prices increasing to market levels over 5 years, and gas from wells now being sold under contract may be sold at prices rising under a prescribed formula, but may not be totally deregulated when the existing contracts expire.

The House, however, passed substantially different legislation (H.R. 9464, on February 5, 1976) which ended natural gas price control over small gas producers but enlarged regulation of major companies. A compromise amendment (adopted initially by the narrow vote of 205 to 201, and by a final vote of 205 to 194) would deregulate prices of natural gas sold by independent producers with sales of less than 100 billion cubic feet a year. The plan frees from price controls all gas that was not dedicated to interstate commerce before January 1, 1976, involving 5,000 to 7,000 independent producers, but keeping controls in place on 25 to 30 major gas producers. The proposal actually enlarges controls over the major companies, moreover, by extending Federal regulations to gas sold by those producers in intrastate markets not subject to the existing regulatory system. Uncontrolled intrastate gas currently is being sold at three to four times the 52 cents per thousand cubic feet price for interstate gas set by the FPC.

As passed, the bill authorizes the FPC to set a national average price for interstate and intrastate gas sold by these large producers using flexible procedures more favorable to the producers than existing regulations. The conflict in approach taken by the bills is significant.

Whether the two bills will be considered in a conference committee, one of them will be directly voted upon by the other body, or both will be shelved by the hostile body.

E. OTHER OIL AND NATURAL GAS MEASURES

Related provisions in the new energy policy and conservation law include prohibition of certain lease bidding arrangements and authorization to require stepped up production on Federal lands.

Increased competition in the oil industry is the objective of the first provision. Joint venture bidding by major oil companies or their affiliates in the development of crude oil or natural gas on the Outer Continental Shelf is prohibited. A major oil company is defined as one producing in excess of 1.6 million barrels of crude oil, natural gas liquids, and natural gas equivalents per day. This restriction is

quite similar to a rule recently made by the Interior Department on a temporary basis. The bill also requires a study to be made for similar limitations on crude oil, natural gas, natural gas liquids, coal, and oil shale on other Federal lands.

The President is authorized to require the production of crude oil and natural gas from designated fields at the maximum efficient rate of production or the temporary emergency production rate on Federal lands. The States would still set the MER and TEP for areas, except for Federal lands, within their borders. During a severe energy supply interruption, the President may require that any field in any State be produced at the maximum levels allowed by those States. MER's and TEP's may be set by the Secretary of the Interior for fields on State land that are unitized with Federal lands and in energy emergencies production levels may also be set.

Outer Continental Shelf leasing, S. 521, which passed the Senate on July 30, 1975, by a vote of 67 to 19, amends the Outer Continental Shelf Lands Act, to create, among other things, a new and comprehensive method of leasing the offshore lands.

Key features of the bill as passed are:

Creates new bidding methods by which the Secretary of the Interior may offer a lease for sale. In addition to the existing combinations of cash bonus and royalty methods, the new methods authorize the use of diminishing or sliding royalties, and a fixed share, diminishing or sliding share, or percentage share of the net profits to the U.S. Additionally there is included a provision that the net profit share methods must be used for at least 50 percent of the frontier areas offered for lease in a given year.

Authorized the Secretary to conduct or contract for exploration activities, including exploratory drilling to determine on an experimental basis the presence or absence of commercial quantities of oil or gas prior to selling a lease.

Changes the present limitation that a lease be no larger than 5,760 acres. Under the proposal the Secretary would be authorized to lease an entire geological structure or trap to the extent practicable.

Requires that prior to development or production of oil and gas from the Outer Continental Shelf, the lessee must submit a development plan for the approval of the Secretary.

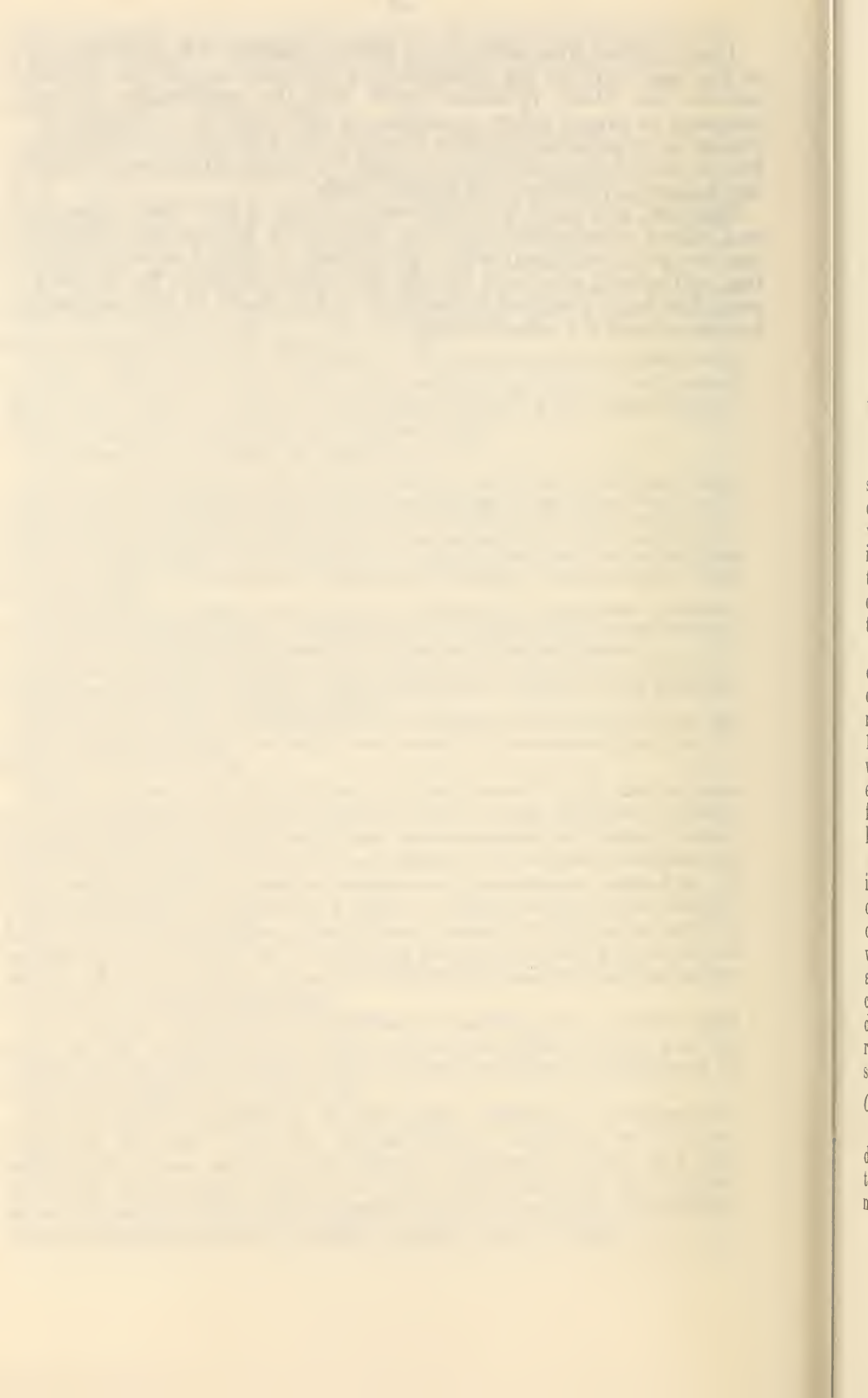
Other features of S. 521 include a coastal State fund for the purpose of compensating the coastal State for the adverse impacts, primary and secondary, economic, social and environmental in nature caused by OCS oil and gas activity; and an off-shore oil pollution settlements fund, which would be used to compensate for damages caused by oil or gas discharges. A holder of a lease or right-of-way is held strictly liable for such discharges, except those caused by an act of war or negligence on the part of the United States or other governmental agency. Recovery is limited to \$200 million per incident and the holder is liable for the first \$22 million.

The House OCS Select Committee is marking up a revised staff draft of the comprehensive outer continental shelf oil and gas development bill (H.R. 6218). Sessions were scheduled for February 25 and 26, and March 4, 17, and 18.

The President reaffirmed, in his energy message to Congress on February 26, 1976, that the Department of Interior will pursue aggressively lease sales in the Outer Continental Shelf, and has scheduled eight sales in 1976. The OCS, particularly in the frontier areas, provides a crucial new potential source of energy for the Nation and could produce almost 3 million barrels a day by 1985.

It is not clear what effect these various measures will have now or in the near term on the production of domestic supplies of oil and natural gas. Many producers argue that the combination of uncertainty of future policy, restraints on price and the complexity of the current regulations combine to reduce the inclination or incentives for the very large investments needed for enhanced recovery or for development of offshore and Alaskan wells.

However, it is clear that Congress is assuming both new authority and shared responsibility for the outcome of a distinctly different new energy management policy, particularly in regard to the production and pricing of oil and natural gas, where decisions for so many years had been delegated deliberately or by default to the producing companies and the private sector.



IV. MEASURES INTENDED TO ENCOURAGE INCREASED PRODUCTION OF OTHER ENERGY SUPPLIES

The 94th Congress has acted on a number of measures intended to increase domestic supplies of coal, nuclear power, solar and other non-nuclear energy supplies. A number of new institutional or regulatory measures have also been proposed, among them a National Energy Production Board, under Senate consideration, and the \$100 billion Energy Independence Authority proposed by the administration. All of these are intended to step up the rate and volume of domestic energy supplies, as well as to reshape the relative priorities among the alternate fuels. These are described in the sections below.

A. CONVERSION TO COAL TO CONSERVE OIL AND GAS AND INCENTIVES FOR INCREASED PRODUCTION

Energy measures relating to coal serve dual functions of both conservation and incentives to increase domestic supplies. Proposals directed at conserving oil and gas by encouraging or forcing conversion to the use of coal—would also have the effect of encouraging increased production of coal. In addition to these, agreement on the terms under which strip mining would take place has been considered of major importance in achieving this goal. For convenience both types of measures are considered jointly in this section.

Both the administration and Congress have placed a high premium on rapidly stepping up the output of coal as a means of offsetting reductions in imports of oil and as a longer run substitute for oil and natural gas. The administration's target is to double coal output in 10 years—from the present 600 million tons per year (TPY), a goal which would require opening up about 140 new two-million TPY eastern underground mines, some 30 new two-million TPY eastern surface mines, and 100 new 5-million TPY western surface mines. About half of present production is by the stripping process.

The congressional majority energy policy statement also endorsed increased use of coal but underscored its concern for an energy production policy fully compatible with environmental concerns. It recommended the adoption of the Surface Mining Control Act, legislation which recognizes the interests of States in energy facilities siting, and called for establishment of machinery to recognize and resolve the concerns of coastal, Rocky Mountain States, and others concerned with damage to the quality of life from potential exploitation of their regions and to provide adequate funding to minimize detrimental secondary effects.

Coal provisions in Public Law 194-163

The new Energy Policy and Conservation Act includes incentive to develop underground coal mines. The legislation authorizes the FEA to guarantee loans to increase coal production by encouraging new market entry. The total guarantees to any person (or company) are

limited to \$30 million. The aggregate outstanding principal amount of loans guaranteed may not exceed \$750 million and only 20 percent of that amount can be used to develop coal which is not low in sulfur content. Eligibility restrictions will limit the loans to very small operators. Maximum interest rates are not specified nor are provisions for them discussed. There is no provision for penalties in cases of non-payment or for companies that already have financing problems. The cost of opening a new mine is so large and the cost of equipment so great that a loan of \$30 million would be only a very slight incentive. Because participation is limited only to small operators of underground low-sulfur coal mines, the volume of new production that it might stimulate is automatically reduced.

The authority of the Federal Energy Administrator is extended to direct powerplants, and other major fuel burning installations, to convert to the use of domestic coal. All powerplants that have a coal-burning capability on June 22, 1974, or acquire it thereafter would be required to use coal. In many areas, however, particularly in large urban areas this requirement could conceivably conflict with air quality standards. Some plants, PEPCO's Anacostia plant, for example, have recently been ordered to shift from coal to oil.

Conversion to Coal: Provisions of S. 1777

In the Senate, hearings have been completed on S. 1777, the National Petroleum and Natural Gas Conservation and Coal Substitution Act of 1975. These hearings were carried out under the auspices of the Senate's national fuel and energy policy study (S. Res. 45, 92d Congress) by the Committee on Public Works, the Committee on Interior and Insular Affairs, and the Committee on Commerce. S. 1777 would require that all new fossil fuel fired powerplants and major fuel burning installations be capable, after January 1, 1979, of burning coal as their primary fuel, that existing fossil fuel fired powerplants and industrial boilers be burning coal by January 1, 1980, and that all new fossil fuel fired powerplants and industrial boilers be burning coal by January 1, 1985. This bill is scheduled for action this session.

The Energy Conservation and Conversion Act (H.R. 6860), which passed the House on June 19, 1976, and is pending in the Senate Finance Committee, includes several important measures designed to encourage coal production and require a shift away from oil and natural gas to other fuels in order to conserve oil and gas.

To encourage business conversion for greater energy conservation excise taxes on the business use of natural gas, crude oil and other petroleum products would be imposed, rising from 17 cents in 1977 to \$1 in 1982 and thereafter. Five year amortization, in lieu of regular depreciation, would be provided for installation of energy saving equipment, including waste-using equipment, recycling, as well as for solar energy, shale oil conversion, and various coal mining, processing, coal slurry pipeline and railroad equipment. Investment credits would be extended for insulation and solar energy equipment installed before a stated date.

An energy conservation and conversion trust fund would be set up, funding not to exceed \$5 billion.

Coal leasing and strip mining bills

The House, January 21, by a vote of 344-51, approved H.R. 6721, to amend the Mineral Leasing Act of 1920 to revise procedures governing the leasing and development of coal deposits on Federal lands. Among other provisions, the bill, as approved:

Reduces to 10 years from 15 the period for which a lease could be held without development;

Protects lands within the national parks, wildlife refuges, wildernesses, trails and wild rivers systems from coal mining;

Allows a Governor to delay for 6 months issuance of a lease to allow strip mining within a national forest in his State; and

Expands the uses to which Colorado and Utah could put revenues received from Federal oil shale test leases.

The bill includes a comprehensive Federal exploration program, estimated to cost \$1.2 billion during the first 5 years.

The bill is in conference with a similar Senate-passed bill, S. 391, which includes strip mining requirements affecting such mining on public lands.

The Senate, on February 4, 1976 approved legislation (S. 2371) to ban new mining operations in the National Park System and halt mining completely for 4 years in several scenic areas; including Death Valley, Calif.

The House failed to override the President's veto during the first session of a comprehensive strip mining bill (S. 7/H.R. 25).⁷ However, similar legislation is being considered in the House Interior Committee in a new bill, H.R. 9725, almost identical to the vetoed bill. The same committee is marking up legislation to prevent strip mining in national parks.

Clean Air Act amendments

First session hearings, held July 8 to 14, 1975, by the Subcommittee on the Environment and the Atmosphere of the House Committee on Technology, have addressed the possible increase of sulfates in the atmosphere resulting from additional conversions to coal. Emissions from stationary sources are acknowledged to contribute 99 percent of the current sulfate load.

The Senate Committee on Public Works, in its Environmental Pollution Subcommittee, is marking up a bill to amend the Clean Air Act to clarify congressional intent with respect to the no significant deterioration provision of the act and to take into more specific account the impact of air quality control requirements or the added burning of coal that will occur as a result of the amendments of ESECA.

The administration's bills (S. 594/H.R. 2860) also addressed themselves to these issues.

Titles IV and V contain amendments to the Clean Air Act and the Energy Supply and Environmental Coordination Act of 1974 (ESECA). One of the proposed amendments to the Clean Air Act would eliminate the regional requirement which prohibits major fuel burning sources from burning coal where the violation of health-related

⁷ A narrative account of the development of this legislation and the reasons for the veto is provided in "Highlights of Energy Legislation in the 94th Congress," *op. cit.*

standards is caused by other sources. Another amendment would permit certain isolated plants to use intermittent control systems on an interim basis where they do not pose a threat to public health.

Title VI would delete the significant deterioration requirement from the Clean Air Act. The administration argues that there may be more appropriate ways to deal with the issues associated with significant deterioration than through the Clean Air Act, and Congress should undertake a prompt and comprehensive review of this issue.

Coal research and development

It may be noted that the administration's fiscal year 1977 proposed budget outlays for coal, under the Energy Research and Development Administration's program, exceed \$390 million in 1977, up from \$288 million in 1976, including efforts on converting coal into clean-burning liquid and gaseous fuels, the development of clean-burning coal fired boilers (fluidized bed combustion), and research on developing high efficiency techniques for obtaining electric power from coal combustion through topping cycles and magnetohydrodynamics.

B. NUCLEAR POWER

Estimates and plans for future energy supplies for the United States anticipate major expansion of nuclear power, the technology for which has been developed over the past three decades with very large infusions of public funds through the Atomic Energy Commission (AEC) and now through the Energy Research and Development Administration (ERDA).

However, during recent Congresses, issues have been raised concerning the general presumption that nuclear power will supply an increasing part of the Nation's energy through the year 2000.

Included are such basic questions as the sufficiency of domestic supplies of low-priced uranium ore to fuel the anticipated expansion; the balancing of risks from possible catastrophic accidents or misuse of stolen nuclear materials against the economic and environmental benefits of nuclear power; the possible impacts on society of measures to keep risk of theft of nuclear materials or sabotage of nuclear facilities within acceptable bounds; a legislative decision whether to look to the Government or the private interests to finance, build, and operate missing parts of the nuclear fuel cycle, particularly enrichment of uranium and long-term management of radioactive wastes; and control over nuclear exports to minimize prospects for further proliferation of nuclear weapons among the arsenals of nations of the world.⁸

Indications of these questions are to be found in hearings held by the Joint Committee on Atomic Energy on the breeder, chaired by Mr. McCormack; by the House Committee on Interior and Insular Affairs on the nuclear debate, chaired by Mr. Udall; by the Joint Economic Committee on the breeder, chaired by Senator Humphrey; by the Senate Committee on Government Operations on nuclear safeguards, chaired by Senator Glenn; and by the Senate Committee on International Relations on nuclear transfers, chaired by Senator Symington.

⁸ The Subcommittee on Energy and the Environment of the House Committee on Interior and Insular Affairs held oversight hearings on nuclear energy April 28-29, May 1, 2, June 2, 5 and 6, 1975. See Hearings, Part 11, Nuclear breeder development program, for a detailed discussion of estimates on uranium reserves and resources of the United States.

During the first session and opening months of the second session, ERDA and NRC authorizations were enacted as Public Law 94-187 and Public Law 94-79 respectively and funds were appropriated in Public Law 94-180, signed December 26, 1975. Supplemental appropriations for NRC, to provide an additional \$50 million for safety measures were enacted, as Public Law 94-18 during the first session, and a revised law providing for public remuneration in the case of a nuclear incident was also passed, as Public Law 94-197.

The following sections very briefly describe legislative activity and other events during this period involving: (1) ERDA and NRC organization and funding; (2) the breeder reactor; (3) plutonium recycling; (4) exports of nuclear materials and technology, and related safeguards issues; (5) siting and licensing of nuclear plants; (6) nuclear insurance indemnification: The Price-Anderson Act; and (7) enriched uranium supplies. Additional details may be found in Nuclear Power and the 94th Congress: A Midterm Report, by Dr. Warren Donnelly and Ms. Barbara Rather, Environmental Policy and Natural Resources Division, CRS, who have also prepared this section.

ERDA and NRC organization and funding for nuclear power

On January 19, 1975, President Ford activated the Energy Research and Development Administration (ERDA) and the Nuclear Regulatory Commission (NRC). Both new agencies were created by the Energy Reorganization Act of 1974 which also abolished the old Atomic Energy Commission.

The NRC is to carry out the licensing and regulatory functions formerly assigned to the AEC, and is to devote its full attention to assuring the safety as well as the reliability of nuclear power. Creation of the NRC should end the concern that some have expressed in the past when one agency, the AEC, had the dual and conflicting responsibilities for development and for regulation of civilian nuclear power.

The ERDA brings together in one agency the major Federal energy research and development programs and bears the responsibility for leading the national effort to develop the technology needed to assure the United States ample and secure supplies of energy at reasonable prices. ERDA consolidates major energy research and development functions from the AEC, the Department of the Interior, National Science Foundation and Environmental Protection Agency. ERDA will also continue research and development for production of nuclear materials and for atomic weapons.

Public Law 94-187, signed December 31, 1975, provided authorizations for ERDA totaling about \$5.7 billion, of which about \$1.2 billion was for nonnuclear projects.

The appropriations bill for the Energy Research and Development Administration and the Nuclear Regulatory Commission (H.R. 8122) became Public Law 94-180 on December 26, 1975. It set ERDA appropriations at \$3,130,765,000 for fiscal year 1976, and \$941,507,000 for the transition period, July 1, 1976 through September 30, 1976. NRC appropriations totaled \$215,423,000 for fiscal year 1976 while \$51,425,000 was appropriated for the transition period.

While only \$212 million of this amount (plus \$58 million for the transition period) was earmarked for the liquid metal fast breeder reactor, the overall LMFBR program cost for the period through the year 2020 is now estimated at \$10 billion, as compared with a late

1960's estimate in the range of \$3 to \$4 billion, and the estimated total program cost of the Clinch River demonstration Breeder Reactor Project, an essential element of the whole fast breeder program, has already escalated from \$700 million to \$1.7 billion, although it will not be operational until the year 1982.

The breeder reactor

A major controversial issue of energy and nuclear power policy in the 94th Congress is the future of the breeder reactor and ERDA's program to further develop this technology and to build a larger breeder demonstration on the Clinch River at Oak Ridge, Tennessee. Compared with previous Congresses, more Members are now raising questions about and challenging this program than in the past, as the number of official reports on the topic provide a broadening information base for Congress and the public. Within the past year the GAO has reported on the cost of the program (May 22, 1975); the Joint Committee on Atomic Energy's ad hoc subcommittee issued a report (June 30, 1975); and ERDA's final environmental statement on the breeder was issued December 31, 1975.

In January 1975, an ERDA review group completed its report on the LMFBR program and confirmed the need to "... proceed expeditiously to develop the LMFBR at this time to assure the continued availability of the nuclear power option to meet the Nation's future energy needs." The report deemed prudent the objective of achieving commercial breeder availability by the early 1960's, although it noted some risk that this timing may be late in relation to need.⁹

The report also found that known economically recoverable domestic uranium reserves would be committed to converter reactors within a few years; that the LMFBR program contained the essential elements for success and was in reasonable balance; and that foreign LMFBR programs would contribute important data and information, but that it would be impractical to substitute foreign reactor experience and technology for critical elements of the U.S. program.

In March 1975, ERDA proposed realignment of management of the fast breeder reactor project. The change would have ERDA assume direct management of the demonstration project in order to recognize the Government's expanded financial commitment and to assure that the project has single lines of authority and that its objectives are met.¹⁰

At about the same time, the Natural Resources Defense Council issued a report sharply criticizing the breeder project and proposed bypassing the breeder and moving directly into using solar, geothermal, and fusion energy and energy conservation. The real LMFBR debate, according to NRDC, will center around whether it is possible to make this leap. NRDC believes the leap can be made and recommended that the Federal Government delay the LMFBR program for a decade as premature and because they see no penalty in such delay. Funds freed by the LMFBR cutback could finance accelerated development of solar, goethermal, fossil, fusion, and conservation technologies.

⁹ U.S. Energy Research and Development Administration, "Report of the Liquid Metal Fast Breeder Reactor Program Review Group," January 1975, 59 p., report ERDA-1.

¹⁰ Cf., ERDA press release No. 75-32, Mar. 11, 1975.

The postponement would also provide time for data to be gathered and assessed which bears critically on the future desirability of the LMFBF program. Such data would include: (1) More accurate information on uranium availability and future energy demands; (2) information on the potential of solar, geothermal, and fusion energy (which should increase "dramatically" with appropriate funding); and (3) information to answer critical health and safety problems of the LMFBF with more certainty than is now present.¹¹

The Joint Economic Committee, chaired by Senator Humphrey, held hearings on the LMFBF program on April 30 and May 8, 1975. In June, the Subcommittee on Energy and the Environment of the House Committee on Interior and Insular Affairs and the Ad Hoc Subcommittee to Review the National Breeder Program of the Joint Committee on Atomic Energy began hearings on the national breeder reactor program and related issues.

Secretary of Commerce Morton and Federal Energy Administrator Zarb told Washington newsmen that the breeder program should not be undertaken on a crash basis.¹²

On June 30, 1975, ERDA Administrator Seamans issued a finding on the preliminary final environmental statement for the breeder that in essence supported further development. When he released the final environmental impact statement on December 31, 1975, Administrator Seamans said:

At this stage of LMFBF technology development we do not have all the answers necessary to determine the environmental acceptability, technical feasibility and economic competitiveness of LMFBF technology for widespread commercial deployment. It is to find these answers that ERDA is continuing the research, development, and demonstration program.

He added that at least one additional programmatic environmental statement will be prepared and considered, probably in 1986, prior to any future ERDA decision on the commercialization of the LMFBF.

ERDA has announced that it has commissioned the National Academy of Sciences to conduct an 18-month independent analysis of all the risks and benefits associated with alternative conventional and breeder reactors as sources of power.¹³

Bills concerning the breeder thus far in the 94th Congress have been limited to the ERDA authorizations. In the Senate, Senator Tunney on June 10 proposed an amendment to the ERDA authorization for fiscal year 1976 to eliminate funds for onsite construction of the breeder demonstration and to require an assessment and report to Congress by the Office of Technology Assessment on the breeder within a year.¹⁴ In the House, the ERDA authorization was passed on June 20, after attempts to amend the bill to reduce or delay the breeder had not succeeded.¹⁵

Plutonium recycle

Whenever nuclear fuel containing uranium-238 is exposed to neutrons, which is the condition within a nuclear reactor, some of the U-238 is transformed into plutonium. If more atoms are so trans-

¹¹ Thomas B. Cochran, J. Gustave Speth and Arthur R. Tamplin, *Bypassing the breeder. A report of misplaced Federal energy priority*. Washington, D.C.: Natural Resources Defense Council, March 1975, 16 p.

¹² Victor K. McElheny, "Morton and Zarb join in suggesting a slowdown on nuclear breeder reactors and call for more research." *The New York Times*, June 10, 1975, p. 25.

¹³ *Nucleonics Week*, June 12, 1975, p. 4. This newsletter attributed the origins of the study to a letter from NAS President Philip Handler to Senator Tunney.

¹⁴ *Congressional Record*, June 10, 1975, p. S10175.

¹⁵ *Congressional Record*, June 20, 1975, pp. H5833-5887.

formed into plutonium than are fissioned to energize the reactor, then the reactor is called a breeder. Conventional nuclear powerplants do transform U-238 into plutonium, which in principle can be recovered and used as a nuclear fuel in the reactors by mixing it with ordinary uranium. Over the years, the AEC has funded some research and development to perfect this idea, known as plutonium recycle. In August 1974 the AEC published in draft an environmental statement on use of such fuels in light-water reactors.¹⁶ The issue addressed is a method of operation of the nuclear power industry, including nuclear reactors and associated fuel cycle facilities and operations. If plutonium recycle is authorized for commercial practice, then the plutonium produced in conventional nuclear powerplants will extend the nuclear fuel resources of the Nation and also provide new income for the nuclear industry and reduce the amount of plutonium held in storage. If plutonium recycle is not authorized, then the energy recoverable from uranium reserves with present nuclear powerplants will not be increased, there would be less reason to process used fuels—which would reduce opportunities for theft or diversion of recovered plutonium, a new source of income for the nuclear industry would be foregone, but the chances of dangerous releases of plutonium to the environment would be substantially reduced.

The National Resources Defense Council in its analysis of plutonium cycles strongly opposed the concept as dangerous and unnecessary.¹⁷ The Nuclear Regulatory Commission addressed plutonium recycle early in 1975. On May 8, the NRC announced that before making a decision as to whether recycled plutonium may be used widely in fuel for light water reactors, it would ask for public comment regarding possible courses of action for evaluating the safeguards issue.¹⁸

On November 12, 1975, the Nuclear Regulatory Commission announced its procedures for deciding—possibly by early 1977—whether to permit widescale use of plutonium mixed with uranium to fuel nuclear powerplants. It also issued procedures for related interim licensing activities pending that decision.¹⁹

The Joint Committee on Atomic Energy in reporting the NRC's authorization for fiscal year 1976 noted that undue delay by NRC will inevitably result in expensive inefficiencies and postponement of related (commercial) decisions. The Joint Committee urged the NRC to expedite its decisions on plutonium recycling and safeguards "... to the maximum extent without reducing the necessary scope and depth of its inquiry, regardless of its decision as to the separability of these two issues."²⁰

Plutonium recycle has attracted legislative attention. In February 1975, Mr. Aspin introduced a Plutonium Recovery Control Act, to prohibit the licensing of certain activities regarding plutonium until

¹⁶ U.S. Atomic Energy Commission. "Draft generic environmental statement mixed oxide fuel (recycle plutonium in lightwater-cooled reactors)," August 1974, 4 vols., report No. WASH-1327 (known as the GESMO report).

¹⁷ J. Gustave Speth, Arthur R. Tamplin and Thomas B. Cochran. "The plutonium decision. A report on the risks of plutonium recycle." Washington, D.C.: Natural Resources Defense Council, September 1974, 29 p.

¹⁸ NRC press release No. 75-115, May 8, 1975.

¹⁹ NRC press release No. 75-270, Nov. 12, 1975.

²⁰ S. Rept. 94-174, to accompany S. 1716, June 4, 1975, p. 6.

expressly authorized by Congress and to require a comprehensive study of plutonium recycling by the Office of Technology Assessment.²¹

In the Senate, Senator Tunney introduced a Plutonium Recovery Control Act to likewise prohibit licensing of plutonium recycle except for military or research and development purposes, and to require OTA to undertake a 3-year assessment.²²

Exports of nuclear materials and technology and related safeguards issues

Controlling exports of nuclear materials and technology and safeguarding these items from theft and diversion in the U.S. and abroad has been a concern of the 94th Congress. Reports of U.S. shipments of weapons grade uranium to South Africa, of West Germany's intention to export large-scale nuclear reactors, fuel processing plants and a uranium enrichment plant to Brazil, and recent international meetings to review safeguards problems have heightened this concern and prompted Congress to introduce and act on legislation as well as hold hearings on nuclear exports and safeguards.

The Export Reorganization Act would reorganize the functions of the Departments of State and Commerce, ERDA, and the NRC. The State Department would be designated the lead agency for negotiating and entering into all agreements for nuclear cooperation. It also would study the feasibility of internationalizing all strategically significant parts of the nuclear fuel cycle, including establishment of Regional Nuclear Fuel Cycle Centers. All peaceful nuclear export licensing authority would be consolidated in the Nuclear Regulatory Commission. The Arms Control and Disarmament Agency would be required to submit a Nuclear Proliferation Assessment Statement on all U.S. nuclear agreements and on all strategically significant nuclear export applications.

The Senate Committee on Government Operations held hearings on this proposed reorganization in late April, 1975 and again in January 1976. In the House, bills have been introduced to prohibit the transfer of atomic technology to foreign powers without the express approval of the Congress,²³ and to prohibit the transfer of nuclear materials to countries which have not ratified the Treaty on Non-Proliferation of Nuclear Weapons.²⁴

One provision of the Plutonium Recovery Control Act introduced in the House by Mr. Aspin would require the Office of Technology Assessment to conduct and complete within 3 years a comprehensive study of the recycling of plutonium to include an investigation of the risks of the unauthorized diversion or theft of plutonium.²⁵

During House debate on the NRC authorization bill for fiscal year 1976, Mr. Long of Maryland introduced an amendment to prevent the NRC from using any of its funds to license or authorize the export of

²¹ H.R. 3618, Feb. 25, 1975, and H.R. 4945 and H.R. 4946, Mar. 14, 1975. Referred to the Joint Committee on Atomic Energy. Mr. Aspin was joined by 48 cosponsors on the several bills. Cf. Mr. Aspin's statement in the Congressional Record of Feb. 26, 1975, pp. E738-739 and Mar. 14, 1975, p. E1159.

²² S. 1197, Mar. 17, 1975. Referred to the Joint Committee on Atomic Energy. The bill would require the OTA to conduct and complete within 3 years a comprehensive study of the recycling of plutonium for the purposes of determining the extent of the dangers to the public health and safety and the environment of such recycling. The study would include: (1) Investigation of the toxicity and carcinogenic characteristics of plutonium; (2) Investigation of the risks of unauthorized diversion or theft of plutonium; and (3) Consideration of the development of systems for the use of plutonium which will assure the protection of the public health and safety of the environment. Cf. Senator Tunney's remarks in the Congressional Record of Mar. 17, 1975, p. S3963.

²³ H.R. 622, Jan. 14, 1975; H.R. 2452, Jan. 30, 1975.

²⁴ H.R. 6082, Apr. 16, 1975; H.R. 7224, May 21, 1975.

²⁵ H.R. 3618, Feb. 25, 1975.

nuclear fuel or technology to any country which furnishes or agrees to furnish uranium enrichment or nuclear fuel reprocessing plants to a country not a party to the NPT, or any country which is not a party to the NPT and which develops either an enrichment or reprocessing plant without concluding an arrangement with IAEA or Euratom requiring present and future nuclear facilities to be subject to safeguards established by either such agency against diversion of nuclear material. The provisions would not prevail if the President determines that the national security requires such a license or authorization and reports this determination to Congress at least 60 days prior to the issuance of such a license or authorization. Opponents of the amendment argued that it would not serve to advance U.S. policy toward nonproliferation. The amendment was defeated 139-117.²⁶

House Congressional Resolution 371, which was introduced by Mr. Zablocki on July 30, 1975, urges a halt to the transfer of nuclear fuel, technology, and equipment to any country that has not accepted IAEA safeguards for all its nuclear programs, or has not become a party to the nonproliferation treaty.²⁷ It also urged the processing of plutonium in regional facilities. The Subcommittee on International Security and Scientific Affairs of the House Committee on International Relations held hearings on this resolution in October and November, 1975. Senate Congressional Resolution 69 is similar.²⁸

A resolution urging the President to seek international cooperation in strengthening and improving international safeguards (Senate Resolution 221) was introduced by Senator Pastore.²⁹ It also directs the President to seek the restraint of suppliers of nuclear equipment in the transfer of nuclear technology. Senate Resolution 221 was passed by the Senate on December 12, 1975.

Concurrent resolutions have been passed which expressed congressional approval of proposed additional amounts of special nuclear material which may be distributed to the International Atomic Energy Agency³⁰ and the European Atomic Community³¹ pursuant to the Atomic Energy Act, and the proposed 2-year extension of the 1955 Agreement for Cooperation between the United States and Israel concerning the civil uses of atomic energy.³² Hearings were held on these proposals on February 6, 1975, by the Subcommittee on Agreements for Cooperation of the Joint Committee on Atomic Energy.³³

Hearings on the export and safeguarding of nuclear materials and technology not related to specific legislation were held by committees of the House and Senate. The Subcommittee on Energy and Environment of the House Committee on Interior and Insular Affairs held hearings on the plutonium economy and nuclear theft international proliferation of nuclear technology and safeguards, as part of its overall

²⁶ Cf. debate in the Congressional Record, June 20, 1975, pp. H5892-5.

²⁷ H. Con. Res. 371, July 30, 1975. By Representative Zablocki.

²⁸ S. Con. Res. 69, Oct. 9, 1975. By Senator Cranston.

²⁹ S. Res. 221, July 26, 1975, by Senator Pastore. Referred to the Committee on Foreign Relations.

³⁰ S. Con. Res. 13, Feb. 11, 1975; and H. Con. Res. 115, Feb. 10, 1975. Approved by the Senate Feb. 19, 1975, and tabled in House Mar. 17, 1975.

³¹ S. Con. Res. 14, Feb. 11, 1975; and H. Con. Res. 116, Feb. 10, 1975. Passed by Senate Feb. 19, and tabled in the House on Mar. 17, 1975.

³² S. Con. Res. 15, Feb. 11, 1975, Mr. Pastore; and H. Con. Res. 114, Feb. 10, 1975. Passed by Senate Feb. 19, 1975, and in the House Mar. 11, 1975.

³³ U.S. Congress. Joint Committee on Atomic Energy. Subcommittee on Agreements for Cooperation. "Proposals for international cooperation in nuclear energy." Hearings, 94th Cong., 1st sess., Feb. 6, 1975. Washington, Govt. Print. Off., 1975, 16 p.

hearings on nuclear energy. The Subcommittee on Arms Control of the Senate Foreign Relations Committee held hearings on March 19, October 21 and 24, 1975, and February 1976, on issues relative to nuclear nonproliferation.

Siting and licensing of nuclear plants

President Ford in his State of the Union Message of January 15, 1975, spoke of nuclear power in the context of beginning to restore the Nation's surplus capacity in total energy. He mentioned a number of actions to energize the Nation's nuclear power program and said he would submit legislation to expedite nuclear licensing and the rapid selection of sites. He also recommended that the 1-year investment tax credit of 12 percent be extended an additional 2 years to speed the construction of powerplants that do not use natural gas or oil, and proposed selective reform of State utility commission regulations. His program envisions that within the next 10 years there will be 200 major nuclear powerplants in the United States.³⁴

The Energy Reorganization Act of 1974 required that the Nuclear Regulatory Commission make a national survey to locate and identify possible nuclear energy center sites defined as an area, not limited to land, large enough to support all the facilities used in the whole nuclear fuel cycle—uranium enrichment, fuel reprocessing, waste storage and other processes, in addition to the generating plant itself.

The act also authorizes the NRC to adopt policies which will encourage the location of nuclear power reactors and related fuel cycle facilities on nuclear energy center sites insofar as practicable.

The study issued January 19, 1976, concluded that depending on location, it can be feasible and practical to construct powerplant centers of up to 20 nuclear power reactors, fuel cycle centers and combined centers. There is not any great unequivocal advantage or compelling need for such centers. Dispersed siting of nuclear facilities remains a feasible and practical, and even desirable option for many locations. Based on the study, the NRC recommended that nuclear energy centers neither be made mandatory, nor be excluded.

Legislation to improve nuclear licensing procedures and to provide for siting include H.R. 3995, introduced by Mr. McCormack on February 25, 1975; S. 894, introduced by Senator Jackson and 26 co-sponsors on March 6, 1975; H.R. 7002, introduced by Mr. Price on May 14, 1975; and S. 1717, introduced by Senators Pastore and Baker on May 12, 1975. S. 894 would authorize the Secretary of the Interior to assist the States to develop and implement State land resource programs and, among other things, to encourage expeditious energy siting decisions. The other bills would improve licensing and siting in various ways.

Nuclear insurance/indemnification: The Price-Anderson Act

The Price-Anderson Indemnity Act provides financial protection to both the public and the nuclear industry in the event of a catastrophic nuclear accident. It was first enacted in 1957 and has been extended three times, most recently in December 1975.

³⁴ As of Mar. 13, 1975, ERDA reported 53 operating nuclear generating units, 63 being built, 13 with site work authorized, 92 with reactors ordered, 15 planned, plus two ERDA-owned units, for a total of 236 nuclear generating units. Cf., AEC press release No. 75-6*, Apr. 29, 1975.

The Federal Energy Administration on July 11, 1975, submitted draft legislation to extend the Price-Anderson Act for 10 years past its expiration date of August 11, 1977. This measure became House Resolution 8631 and S. 2568.^{35, 36} The Joint Committee on Atomic Energy held hearings on the bills, in September, October, and November 1975. Both Houses passed the measure in December and it was signed by the President on December 31, 1975, becoming Public Law 94-197.

The extended act provides that each nuclear licensee furnish \$125 million of private insurance (the maximum amount available) to cover public liability claims against the licensee and its subcontractors. The AEC provides indemnity protection up to \$435 million for each nuclear incident in addition to the private insurance. The maximum liability for any nuclear incident shall not exceed a total of \$560 million.

Enriched uranium

Enriched uranium is the fuel used in U.S. types of nuclear power plants. The Energy Research and Development Administration (ERDA), is the principal domestic and world source of enriched uranium. However, in 1974, the enrichment capacity of ERDA factories became fully committed and no additional long-term enrichment orders can be accepted.

Without the addition of at least one major new plant, a severe shortage in this nuclear fuel is expected in the early 1980's. There is little opposition to expansion of U.S. enrichment capacity to fill the demand in both domestic and foreign markets, except from those who oppose nuclear power in general. Among the arguments for continued U.S. participation are:

The revenues from sales of enrichment services is considerable, and

Without an assured supply of enriched fuel, foreign customers are reluctant to buy U.S.-built nuclear reactors, and may also try to secure other sources of enrichment services, including national facilities. This could harm U.S. efforts to halt the proliferation of nuclear weapons capabilities, because enriching facilities can be used to produce the necessary fissionable material.

At issue is who should finance, build, and operate the new capacity: ERDA or a private venture. The administration favors private construction and operation, and has proposed legislation to establish incentives for private financing. Some Members of Congress favor direct Government construction and operation, or creation of a special Government corporation to do so.

The Administration proposal, the Nuclear Fuel Assurance Act,^{37, 38} would allow the Government to:

Supply and warrant Government inventions and discoveries in enrichment technology;

Sell certain materials and supplies available only from the Government;

³⁵ H.R. 8631, July 14, 1975, Representatives Price and Anderson. Referred to the Joint Committee on Atomic Energy.

³⁶ S. 2568, Senator Pastore. Referred to the Joint Committee on Atomic Energy. . . .

³⁷ S. 2035, July 8, 1975, Mr. Pastore. Referred to the Joint Committee on Atomic Energy.

³⁸ H.R. 8401, July 8, 1975.

Buy enrichment services from private producers or sell Government enriching services to the private producers;

Assure the delivery of uranium enrichment services to customers who have placed orders with the private firms;

Assume the assets and liabilities of a private enrichment firm if it threatens to fail.

The Joint Committee on Atomic Energy has held extensive hearings on the enrichment question, most recently in December 1975.

C. SOLAR AND OTHER NONNUCLEAR ENERGY RESEARCH AND DEVELOPMENT

Continuing a congressional initiative for greater Federal support for solar energy begun in the 93d Congress, during the first session and the opening months of the second session of the 94th Congress both the House and the Senate have pushed for additional resources in this energy field.³⁹

A tax credit of up to \$2,000 (25 percent of the first \$8,000 cost) for converting homes to solar heat was approved by a vote of 244 to 132 on June 13, 1975, in the course of debate on the Ways and Means energy bill, H.R. 6860. The residential solar energy credits are permitted for insulation of equipment meeting "interim" rather than "definitive" HUD standards and may be provided for solar equipment shared by several houses.

The Energy Conservation Act (S. 2932) introduced February 5, 1976, includes low interest loans and loan guarantee programs to improve the thermal efficiency of individual residences by installation of insulation, storm windows, or other improvements, or by the application of solar energy heating and cooling equipment.

The Senate Select Committee on Small Business began hearings, expected to extend over a period of several months, on "Solar Energy: How Much? How Much From Small Business: How Soon? Why Not More? Why Not Sooner?" At the first of these hearings, held May 13 and 14, 1975, witnesses from the private sector testified who urged inclusion of heating-and-cooling systems contractors in the projected solar demonstration projects to be financed under Public Law 93-409, and provided examples of discrimination against small business in the emerging solar energy industry.

A staff study prepared as background for the hearings tabulated a large number of estimates by Government agencies and private research firms, prepared between 1972 and 1975, on U.S. energy consumption projected for estimated solar energy contributions, by technology, 1980-2020.⁴⁰ A preliminary finding was that official estimates of contribution which can be provided by solar technologies appear to have begun to go up quite rapidly. The joint NSF/NASA solar energy panel, which in 1972 had estimated that by the year 2000 only 5 percent of total national electricity supply would be generated

³⁹ Public Law 93-409, "The Solar Heating and Cooling Demonstration Act of 1974"; Public Law 93-383, "Housing and Community Development Act of 1974"; Public Law 93-473, "The Solar Energy R&D and Demonstration Act of 1974"; and Public Law 93-316, "The NASA Authorization Act."

⁴⁰ Congressional Record, May 8, 1975, pp. S7730-40.

by solar energy (including wind, ocean thermal differences, and other solar induced energy sources), in 1975 reportedly had raised this estimate to as much as 50 percent of projected electric power generation, made up of 25 percent wind generated, 9 percent photovoltaic, and 16 percent from ocean thermal differences, assuming, however, no limit on capital availability for concurrent development of all three technologies.

The NSF/NASA projection assumed that a little more than 40 percent of total U.S. energy would come from electricity in 2000, and would add up to an estimated 76 quads, or a little more than the equivalent of 30 million barrels of oil a day. About half of this could come from solar energy.

Meanwhile, FEA has contracted with Florida Technological University for a study to provide regulatory and legislative recommendations designed to expand the market for solar water heating equipment, Florida law already requires new single family homes to be constructed in such a manner as to be adaptable to the installation of solar water heating equipment, and further State and local ordinances may result from the study. Before the introduction of cheap natural gas as an energy source, more than 25,000 solar water heaters were in use in the Southeastern States, including Florida.

On April 7, 1975, ERDA and the Department of Housing and Urban Development, in compliance with Public Law 93-409, submitted to Congress an interim report for conducting a nationwide solar heating and cooling demonstration program. The report, "National Plan for Solar Heating and Cooling (ERDA-15)," calls for the demonstration of solar heating by late 1977, and the demonstration of combined solar heating and cooling by late 1979. Hearings on this report were held by the Subcommittee on Energy Research, Development and Demonstration of the House Science and Technology Committee on May 13, 14 and 15, and the Report was released in October 1975. This subcommittee also held hearings on a second important solar energy policy document, "Preliminary Definition Report. National Solar Energy Research, Development and Demonstration Program (ERDA-49)." A draft of this report was released by ERDA in early July in compliance with provisions of Public Law 93-473 which required ERDA to develop a comprehensive plan for a national solar energy program in all solar research areas. The final ERDA-49 was released in August 1975.

The fiscal year 1976 authorizations for nonnuclear research included \$275 million for coal energy development, \$48.6 million for petroleum and natural gas development, \$25 million for oil shale development, \$96 million for development of solar energy, and \$33.8 million for geothermal energy.

In the President's energy message of February 26, 1976, the administrations budget outlays anticipated for 1976 and requested for

fiscal year 1977, for all energy research and development, including nuclear were summarized as follows:

PRESIDENT'S 1976-77 ENERGY R. & D. BUDGET

[Outlays in millions of dollars]

Program activities	Fiscal year 1976		Fiscal year 1977		Percent change
	Amount	Percent	Amount	Percent	
ERDA, total.....	\$1,412	64	\$1,975	69	+40
Nonnuclear, total.....	519	24	710	25	+37
Fossil ¹	333	15	442	15	+33
Solar.....	86	4	116	4	+35
Geothermal ²	32	2	46	2	+44
Conservation.....	56	2	91	3	+63
Environmental control.....	12	1	15	1	+25
Nuclear, total.....	893	40	1,265	44	+42
Fusion.....	224	10	304	11	+36
Fission.....	521	23	709	24	+36
Fuel cycle/safeguards.....	59	3	144	5	+144
Enrichment R. & D.....	89	4	108	4	+21
EPA: Environmental control ³	80	4	73	3	-14
NRC: for example, safety research.....	94	4	116	4	+23
DOI: Coal and oil shale mining.....	52	2	64	2	+23
Other.....	14	1	9		-36
Total direct energy R. & D.....	1,652	75	2,237	78	+35
Supporting R. & D.:					
ERDA.....	373	17	403	14	+8
EPA.....	40	2	47	2	+18
NSF.....	93	4	139	5	+50
Total supporting R. & D.....	506	23	589	21	+16
Energy related: DOI: Coal mine health/safety research.....	29	2	30	1	+3
Grand total ⁴	2,187	100	2,856	100	+30

¹ This category includes R. & D. on coal, oil, gas, and oil shale.

² This category does not include the resource assessment activities of the Department of the Interior.

³ This category includes programs for coal cleaning and stack-gas cleanup.

⁴ In addition, the fiscal year 1977 budget identifies funds to accelerate the commercialization and demonstration of energy technologies through loan guarantees: Geothermal resources development fund, fiscal year 1977 outlays of \$4,400,000; and synthetic-fuels commercial demonstration fund, fiscal year 1976 outlays of \$3,000,000.

Source: White House fact sheet, Feb. 26, 1976.

D. A NATIONAL ENERGY PRODUCTION BOARD AND OTHER MANAGEMENT MEASURES

The Democratic Majority proposals issued February 27, 1975, recognized the importance of an "orderly but accelerated development of greater and more diversified domestic sources of supply." As described in the published report, "The Congressional Program of Economic Recovery and Energy Self Sufficiency":

The overall objective of national energy sufficiency recognizes the enormous undertaking involved in terms of capital investment and incentives, in terms of environment protection and national security. Switching from oil and gas to coal and other sources is just one aspect of the program although a most critical

one and it alone will require a substantial commitment of national resources. A national program of this magnitude requires the establishment of an instrumentality at the highest level of government to make certain that the program is successful. Therefore at the core of the recommendations is the creation of a National Energy Production Board as an independent agency of the government. It would mobilize unutilized and under-utilized private and public resources to increase domestic energy production on an urgent basis. The National Energy Production Board would be patterned after the War Production Board of World War II and, subject to Congressional review, would have authority and funding to break energy bottlenecks, and to take all actions necessary to accelerate the production of and conversion to domestic energy sources. Much of the cost would be funded out of an Energy Trust. * * *

As the financial base for this trust, a 5 cent tax on gasoline at the pump would be imposed 30 days after enactment. This revenue would begin to pay for the urgent program of conservation and production.

Additional revenues for the Trust would be derived from energy taxes on inefficient uses of energy and by dedication of part of the funds paid for leases covering the Outer Continental Shelf.

It was anticipated that Trust fund receipts should and would be \$1 billion in 1976 and \$2 billion thereafter through fiscal year 1984.

S. 740, A National Energy Production Board

S. 740, introduced February 18, 1975 (by Senators Jackson, Magnuson, Stevenson, Bayh and Leahy), provides the proposed legislative authority and administrative framework through which this broad objective would be carried out. Hearings were held March 20, April 14 and 15, and July 14 and 21, 1975.

As introduced, the bill would establish a "National Energy Production Board to assure early development of energy resources on the public domain and other Federal lands and on the Outer Continental Shelf to overcome the dependence of the United States on foreign nations for energy supplies which are essential to national security, commerce, and a full-employment economy."

The independent nature of the Board is described in Title I, subject to cooperative liaison and "rights of review and comment" on proposals, which are listed in Title V: As described in the official summary of Title I:

The National Energy Production Board will consist of a Chairman and four members appointed by the President with the advice and consent of the Senate. The Chairman of the Board has cabinet rank (Level I of the Executive Schedule) and the members of subcabinet rank (Level II). The Board is established for a five-year term subject to extension by the Congress. No member may hold another position in the Executive branch, nor may a member, after service on the Board, represent any party other than the United States in a matter involving the Board. The Board will have power to make full use of competent personnel and enter into contracts to carry out its work.

Title V on Guidelines and Administration provides that:

The Energy Resources Council, the Governor of any affected State and the governing bodies of political subdivisions of affected local areas shall review proposals of the Board. In addition, right of review and comment shall be provided to private industry, labor, and environmental and consumer groups.

The duties, responsibilities and authorities of the Board are comprehensive and far reaching, but place certain of the programs mandated under congressional review with a right of disapproval and others in a status which requires express legislative authorization.

Two major overall duties are described in Title II, (1) general monitoring of all energy resource activities and (2) preparation and execution of a Federal oil and gas exploration program on Federal lands including the OCS.

The Board is empowered to monitor all activities of the Federal government and the private sector within the United States or in other parts of the world which have a bearing on the development of domestic energy resources or the availability of material, equipment or manpower for such development.

The Board is directed to prepare and carry out a Federal oil and gas exploration program designed to determine the extent, location and value of oil and gas reserves on Federal lands, including the Outer Continental Shelf. This program shall involve prompt, comprehensive, and environmentally responsible activities, including exploratory drillings, in consultation with affected State and local governments.

Three programs, ordered to be developed by the Board are to be subject to congressional review and right of disapproval within 60 days, the naval petroleum reserves program (described in section I above), a Federal facilities energy program and an expedited energy project procedure to overcome delays and institutional impediments.

The Federal facilities energy program as described in title III, section 303 of the bill, to be drawn up by the Board within 90 days of the effective date of this section, would be based on and would include:

- (1) an inventory of federally owned and federally controlled industrial and manufacturing plants and installations, including but not limited to naval shipyards, ship repair facilities, depots, arsenals, and other facilities and installations of the Department of Defense and industrial and manufacturing facilities of other departments, agencies, and instrumentalities of the Federal Government;

- (2) an inventory and assessment of the capacity of various departments' agencies, and instrumentalities of the Federal Government, including but not limited to the Corps of Engineers of the Department of the Army, the Naval Ordnance Command of the Department of the Navy, the Bureau of Reclamation of the Department of the Interior, and the General Services Administration to participate in the management of Federal energy exploration, development and production programs;

- (3) the identification and designation of idle, underutilized, or surplus Federal facilities and installation capable of, or capable of being adapted to, at reasonable cost, the production of materials and equipment essential for the production of energy and fuels, including but not limited to drilling platforms, drilling rigs, pipe for drilling operations and pipelines, and mining and transportation equipment, goods, and supplies;

- (4) estimates of the cost of equipping, reequipping, tooling, or retooling such facilities and installations for the production of energy-related materials, goods, and equipment;

- (5) estimates of the availability of the manpower required to staff such Federal installations and facilities;

- (6) a plan for the conversion of designated appropriate Federal facilities and installations for production of energy-related materials and equipment;

- (7) a schedule for the conversion of designated Federal facilities and installations for the production of energy-related materials and equipment.

Programs to be drawn up by the Board within nine months, but which require express congressional authorization are authorized in title IV, officially summarized as follows:

The Board is directed to prepare, within 9 months, Federal action programs to accelerate coal production from public lands of the United States, improvement and augmentation of the energy transportation system, including rebuilding railroad systems, coal slurry pipelines, oil and natural gas pipelines, and a Federal oil and gas production program. The Federal oil and gas production program shall include provisions for development and production of oil and gas reserves under Federal management, joint ventures and cost sharing with private industry and preferences for entry into the oil and gas production industry by independent producers. None of the programs authorized under the title may proceed without express legal authorization of the Congress.

An energy independence authority

The Administration has proposed, in S. 2532/H.R. 10267, submitted October 10, 1975, a new Energy Independence Authority (EIA). In his energy message to Congress, February 26, 1976, the President summarized its functions as follows:

A new government corporation to assist private sector financing of new facilities. It would be able to provide up to \$100 billion for financial assistance to projects to develop, transport, or conserve energy; for commercializing new technologies; for technologies essential to the production of nuclear power; for conventional technologies involving production and distribution of electric power generated by sources other than oil or gas; and for conventional technologies involving projects of unusual size or scope, or projects which represent novel institutional or regulatory arrangements, in the production or transportation of energy.

EIA would also expedite the regulatory process at the Federal level for projects deemed critical for energy development. It would establish the FEA as the coordinator of a streamlined permit process for all new facilities which require Federal licensing.

Other energy management measures, Public Law 94-163

In addition to the important pricing and allocation measures which are included in the new Energy Policy and Conservation Act and described earlier in this section, additional management authority is provided in title V of the new act.

Materials allocation: An important provision amends the Defense Production Act to authorize the President to require allocation or priority performance on contracts relating to supplies of materials and equipment needed to maximize domestic energy supplies. The authority may be used only if such supplies are scarce, critical, and essential to energy production, processing, distribution, conservation, or the construction and maintenance of energy facilities. This authority expires December 31, 1984. The bill provides that this special authority would continue even if the Defense Production Act of 1950 were otherwise to expire.

The President is given the authority to restrict exports of coal, petroleum products, natural gas, or petrochemical feedstocks as well as equipment necessary for further exploration, production, refining, or transportation of energy supplies. Exceptions are allowed for exchanges, for increased transportation efficiency, and for the historical trading relations with Mexico.

The expanded data collection authority, which is included among the general provisions, provides one of the most important of the new energy policy management measures included in the bill. The authority of the Federal Energy Administration to gather information under the Energy Supply and Environmental Coordination Act of 1974 is extended until December 31, 1979. The Comptroller General is authorized to conduct detailed verification audits of books and records of any person or corporation in the energy industry who is required by this or other laws to furnish such information or if requested to do so by a full congressional committee with legislative or oversight jurisdiction. Furthermore, the Comptroller General may conduct verification examinations of financial information relating to energy resources and products of any vertically integrated petroleum company. A civil penalty of up to \$10,000 is imposed for failure to comply with an inspection order, and each day of failure to comply will constitute a separate violation.

Among the many lessons of the Arab oil embargo and the subsequent experience of coping with the serious petroleum shortages which developed was the recognition of the difficulty of shaping and executing new policies in the absence of any reliable and current energy data base other than that supplied by the industry itself.

It is the intent of the 94th Congress that this weakness be corrected under the authority provided in this act.

V. REDUCE DEPENDENCE ON FOREIGN IMPORTS OF OIL

During the 2½ years since the Arab oil embargo in mid-October 1973, a consensus has been reached within Congress and the administration that the country's growing dependence on imports of foreign oil is undesirable, that it should be curbed and, hopefully, reduced.

This consensus on the broad objective, however, has not yet been matched with a consensus on means. The administration's position has been that oil imports can and should be reduced through imposition of import tariffs, fees, and/or excise taxes, coupled with removal of price controls on domestic oil and gas, relying on the higher prices to lower imports through lowered consumption. Higher prices would also serve, it is argued, to stimulate increased domestic production of not only oil and gas but alternative energy sources as well.

The Democratic position in general places more reliance on quantitative controls, through various types of import quotas and other energy management measures. Decontrol of oil and gas prices is to be permitted, but only gradually and at a slower rate than the administration desired.

During the 1st session of the 94th Congress there was a great deal of legislative activity and debate on import tariffs, quantitative oil import controls.

During this period, while the debate over how to reduce dependence on imports escalated, so did oil imports: By the end of the first week in February 1976, foreign oil imports reached a level of 6,980,000 barrels per day (4,932,000 b/d in crude and 2,048,000 b/d in oil products). This was 567,000 b/d higher than in February 1975 and already exceeds the levels stipulated in the House-passed Ways and Means bill, H.R. 6860, of 6 million b/d for 1976 and 6.5 million b/d for 1977.

Furthermore, domestic production of crude oil declined during the same period, from 8,580,000 b/d during the first week of February 1975 to 8,062,300 b/d in the first week of February 1976, creating additional pressures to increase imports.

The debate on limiting oil imports therefore has a prime significance.

A. OIL IMPORT TARIFFS AND OTHER FEES

Following up on the administration's comprehensive energy plan, formally announced January 15, 1975, and introduced as S. 594 and H.R. 2633 and H.R. 2650 on February 5, 1975, President Ford imposed a \$1 a barrel tax on imported oil, effective February 1, to rise to \$3 in two additional \$1 increases scheduled for March 1 and April 1, 1975.

At the same time he stated that "I am prepared to use Presidential authority to limit imports, as necessary, to guarantee success" in reducing imports. Title IX of the administration bill, directed at insuring price stability should foreign prices fall, would provide specific authority to use tariffs, quotas, and variable fees to control imports as well as to establish a floor price for domestic oil.

Congress responded immediately with a bill, H.R. 1767, introduced in the House on January 20, 1975, to suspend for a 90-day period the authority of the President under section 232 of the Trade Expansion Act of 1962, or any other provision of law, to increase tariffs or to take any other import adjustment action with respect to petroleum or petroleum products and to negate any such action which may be taken by the President after January 15, 1975.

The bill passed the House by a vote of 309 to 114, February 5, and was approved by the Senate February 19, by a vote of 66 to 28.

It was vetoed by the President on March 5, 1975, but only after he announced that in the interests of accommodation and to provide additional time for congressional action he would postpone the additional \$2 tariff on oil imports until May 1.

On April 30, he again announced a further delay in import fees until June 1 to give Congress further time to develop its alternatives. Subsequently, on May 27, 1975, after Congress had recessed without agreement on comprehensive legislation, the President announced the imposition of the next \$1 fee on imported crude oil and \$0.60 on imported refined products, effective June 1, 1975.

On July 30, 1975, the FEA Administrator announced that FEA was prepared to eliminate the 60-cents-per-barrel tariff on refined oil products imported into the United States. However it was apparent that this offer was contingent on congressional agreement to the administration's price decontrol plan and congressional disapproval of that plan, on the same day, left the outcome of the offer to drop the tariff in imported refined products in doubt.

Meanwhile, a vote to attempt to override the veto was postponed while intensive committee review of the Democratic alternative programs went forward in both the House and Senate.

The House included an ad valorem tariff in its first major composite energy bill, H.R. 6860, which passed the House on June 19, 1975, and is still under review by the Senate Finance Committee.

The bill imposes a tariff on oil imports of 2 percent ad valorem for crude oil and 5 percent ad valorem for petroleum products. These are approximately the levels of the import license fees that were in effect in January 1975 under the national security provision of the Trade Expansion Act. The authority of the President to impose oil import tariffs or quotas under that act (except in the case of war) is terminated, but the President is given the authority to increase the oil import tariff to 10 percent ad valorem or \$1 per barrel, whichever is higher. For a 2-year period, however, the tariff on residual and distillate fuel oil is limited to 5 percent.

These and other measures using import fees were overtaken and, for the time being, superseded with the signing of the Energy Policy and Conservation Act, Public Law 94-163.

In a statement and fact sheet issued when he signed the bill, on December 22, 1975, the President announced the removal of the \$2 per barrel import fee, which was made effective as of the same day, and stated that while he believed the price decontrol provisions which were included might permit "imports to increase by approximately 150,000 barrels per day by the end of 1976, imports probably will be about 200,000 per day less after 3 years, due to future price increases

allowed by the bill." and at the end of 40 months when price controls end entirely, should "reduce imports by about 3 million barrels per day."

(It is important to keep in mind that the administration's estimates of reductions in imports have, to date, been measured against an otherwise anticipated rapid rise, to 12 million barrels a day by 1985 if no new actions are taken.)

B. QUANTITATIVE OIL IMPORT CONTROLS

Two major omnibus alternative energy policy approaches were announced by members of the Democratic majority 6 weeks after the administration's program was announced. One entitled "The Congressional Program of Economic Recovery and Energy Sufficiency," was announced by the majority leaders of both House and Senate, February 27, 1975; and the other was prepared by eight task forces made up of the Democratic members of the House Ways and Means Committee, issued March 3, 1975.

The two proposals, although favoring quantitative controls as preferable to increased import tariffs, differed on how, when and to what degree such controls would be applied.

The most specific active legislative proposal mandating quantitative oil import controls was included in H.R. 6860, a clean bill reported from the Ways and Means Committee by the fairly close vote of 19 to 16, on May 15, 1975, after a marathon, almost nonstop series of hearings and open markup sessions, beginning March 3, 1975. The bill passed the House on June 19, 1975.

With quantitative import control provisions stronger than those included in H.R. 5005, originally introduced March 17, 1975, the proposed legislation would impose mandatory quotas on oil imports. These were set at 6 million barrels per day in 1975 and 1976, 6.5 million barrels per day in 1977, 6 million barrels per day in 1978, and 5.5 million barrels per day thereafter. These levels are lower than the level of imports prevailing prior to the oil embargo and, together with a civilian strategic reserve and a program for standby emergency conservation measures, would, it was believed, provide adequate protection against an oil embargo.

As described in the committee's report (H. Rept. 94-221):

Your committee does not intend that these import quotas be an energy conservation measure in themselves. Rather, the levels of the quotas are designed to reflect the energy conservation and conversion measures elsewhere in the bill, and the purpose of the quotas is to make sure that all oil savings resulting from the conservation and conversion program are reflected in reduced imports. The President, therefore, is given the authority to vary the level of the quota. Because of the greater uncertainty about the level of demand and domestic supply farther into the future, the President is given more flexibility in later years. The bill gives the President the authority to vary the basic quota by up to one million barrels per day in 1975, 1976, and 1977, 1.5 million barrels per day in 1978 and 1979, and 2 million barrels per day in 1980 and thereafter. If the quotas are at all restrictive, to prevent oil importers from receiving excessive profits from the import licenses provided under the quota system and to allocate oil imports as efficiently as possible, import licenses are to be distributed through public auctions. Also, to ensure that users of imported fuel oil have time to convert to other energy sources, import restrictions for residual and distillate fuel oil are set at a minimum of 2 million barrels per day for the years 1975-1977 out of the overall quotas for those years.

The chairman of the Ways and Means Committee had intended to seek House passage before the Memorial Day recess, and floor debate had been scheduled for May 21 and 22, subject to clearance by the Rules Committee. The Democratic leadership decided on May 20 to postpone debate until after the recess, hoping to be able to consider the proposals jointly with the House Commerce Committee's complementary companion bill, H.R. 7014, not then reported from committee.

When it became clear that the House Commerce Committee would not be able to report H.R. 7041 in time for joint consideration, the House proceeded to consider the Ways and Means bill alone, in the general understanding that other complementary and supplementary measures were pending in other committees.

General debate began June 9, 1975, under a rule, H. Res. 505, which permitted consideration of the more than 100 pending amendments title by title.

The quantitative import quota provision came under attack almost immediately, with a recommendation that it be stricken entirely from the bill. The motion was rejected by a vote of 185 ayes to 224 noes, on June 10, 1975, and title I was retained with a modification which increased the ceilings permitted for 1979 from 5.5 million barrels a day to 6 million barrels per day, and for 1980, from 5.5 million barrels per day to 6.5 million barrels per day. The adjustment was based primarily on the prediction that, even with positive action to bring about substantial savings in consumption and positive incentives to increase domestic production, total domestic oil production was likely to at best remain at present levels but could still continue to decline as old fields went out of production faster than new fields could be brought into flow. The vote approving the increase, on June 11, 1975, was 211 ayes to 200 noes and, at these levels, quantitative quotas were retained in the final bill which was approved on June 19, 1975, by 291 ayes to 130 noes.

As noted above, the bill is now pending in the Senate Finance Committee where it is now in markup.

C. IMPORT QUOTAS—A DUAL ROLE

Whether or not the 94th Congress can reach agreement on this important management tool, the debate has already produced a much more comprehensive awareness of its wider role in reshaping energy demand and stimulating new supplies. As stated many times in this report, the administration's energy policy has emphasized the central role of a pricing policy designed to increase the cost of oil and natural gas as a dual measure for both cutting back on consumption and encouraging increased production of domestic supplies.

During the course of the floor debate on H.R. 6860, a parallel alternative concept was put forward, namely, that quantitative limitations on petroleum imports would also serve a dual role, both to promote conservation of energy and to encourage increased domestic production of not only oil and natural gas but also alternative energy resources.

It should be noted that this rationale was a new phenomenon in the evolution of the Ways and Means energy proposals. As a number of opponents of the bill sharply pointed out, the committee report had

downplayed the role of quotas as a direct constraint on consumption, arguing that its role would be rather to insure that petroleum savings otherwise achieved would be reflected in savings in imports.

However, this premise was promptly challenged by both opponents and proponents of the quantitative import limitation provision, early in the debate and even before the tax on gasoline was removed from the bill:

Mr. KETCHUM. I find it absolutely amazing that the committee majority continues to believe that quotas on imports are not going to produce a major crunch. Just listen to this language from the committee report:

"Your committee does not intend that these import quotas be an energy conservation measure in themselves * * * a comprehensive program of quota restrictions is necessary to be sure that the conservation achieved by other provisions in the bill will result in a reduction in foreign imports rather than a reduction in domestic production."

This premise is so false that it defies comprehension. Domestic production is declining and this pious hope will not stem the decline. On the contrary, other actions already taken by Congress, such as the repeal of the depletion allowance, and actions being contemplated such as a windfall profits tax insure a drop in domestic energy activity. The FEA estimates that, at best, there would be a 1 million barrel a day increase in petroleum production, if a massive development program were underway and oil sold at \$11 a barrel. These are optimistic assumptions by anyone's standards. At the same time, assuming a 4-percent increase in demand a year, we will need between 7 and 9 million barrels a day of imported oil, figures well above the 6 million barrel a day quota. So how in the name of heaven can the supporters of this bill say that the quotas would not have a tremendous impact?¹

* * * * *

Mr. CONABLE. This quota supposedly has enough flexibility so that it will not bite, but if the gasoline tax is eliminated I do not think there is any doubt that the quota, as a quantitative limitation would in fact come into play and cause serious problems in the administration of the resulting scarcity.²

* * * * *

Mr. OTTINGER. We have in the bill which is coming up from the Commerce Committee provided allocations, so that if import quotas create some shortfall and it may well do that at some time in the future, we will be able to manage that and the President will have the authority to make the necessary allocation.

We have got to take some hard decisions in this House and any way we turn is hard. If the decision is to go to the price route, it means everybody is going to pay huge increases in price for everything in our economy. If we decide to do nothing to conserve, we are going to have this absolutely horrendous transfer of assets to the OPEC countries. Quotas and allocations with price controls is by far the best alternative.

I think this is at the heart of the bill. Regardless of what people do on the gasoline tax, if we have a quota in place we will have a meaningful congressional energy policy.³

The Congressman who fought the hardest to strike all of title I, on oil import quotas, was the first to argue that its effect would in fact be so rapidly to drive up domestic oil production as to "drain America first":

Mr. GIBBONS. Now, oil is a very precious commodity. If we call up the Federal Energy Agency and ask them how much oil there is in the United States within the 50 States, the safe 50, they will tell us there are about 4,000 days of oil left in this country.

If we call up the U.S. Geological Survey and say, "How much oil is left in this country, oil we know is here and oil we hope is here and how long will that last at the present rate of consumption?" They will tell us oil we know is here and oil we hope is here and oil we know is on the Outer Continental Shelf, all that oil will last for all of 35 years.

¹ Congressional Record, June 10, 1975, p. H5218.

² Ibid., p. H5231.

³ Ibid., p. H5238.

Now, how old will we be when that oil runs out and how old will our children and grandchildren be when that oil runs out? What kind of heritage will we be leaving for ourselves and what kind of heritage will we be leaving for our children and for our grandchildren? What kind of position are we putting the United States in as far as bargaining just down the road? What kind of position are we putting the United States in as far as national security is concerned?

Our answer to all those questions has got to be that we are putting them in the worst possible position that we could dream of. What worse position could we get ourselves in than to use up our most precious natural resource before and at a much more rapid rate than we should be exhausting it.

If we put on quotas, that is the only result that can happen. The only reason for quotas is to protect domestic production and to make domestic production run at its top rate, while the rest of the world goes on with its oil resources.⁴

Proponents agreed that the effect of quotas firmly applied, would indeed provide a "bite" and a "crunch" but pointed out that, with or without quotas, oil as a finite resource was being depleted in the United States and throughout the world, that quotas served notice both to OPEC and to ourselves that the United States must move swiftly to develop not just remaining oil but also all available sources alternative to oil.

Mr. BELL. Mr. Chairman, I just wanted to point out something else which I think has not been mentioned. When we talk about draining the resources of our country, we also should be considering the fact that we are encouraging other oil companies in this country to go out and explore. By this proposal we are encouraging this, which is also a very important facet of this program it seems to me.⁵

* * * * *

Mr. CORMAN. If we must cut back on those imports or, at least, hold them where they are, then clearly the sensible way to do it is through an import quota. It will be the incentive for investing in domestic exploration and production. If we do it merely by price, we will further bloat the profits of the oil companies, and we will leave totally within their discretion where exploration money is spent.⁶

* * * * *

Mr. KOCH. The only way we could find a feasible way of facing up to the problem is laying out the numbers of barrels, as we have here. Oil is a finite commodity. The gentleman says we have a glut of oil, but the world will be out of oil in 20 or 30 or 35 years. There is no long-range glut of oil, and in terms of history that is a very short time.

This country peaked out in production 5 years ago, and production has gone down each year since. The best possible way of developing alternative sources and assuring that there will be a market is to establish this kind of quota system. This is the heart of the bill.⁷

* * * * *

Mr. GREEN. Every country in the world is running out of oil, and we have to find alternate sources of energy. That is one of the things this bill has tried to do, to stop being energy hogs, to serve notice that we intend to discipline ourselves. We have very carefully tailored this quota, and we have time in the future, if we have made a mistake to correct it.

The quota that would be in effect this year will not be reached and if it were and we were in some kind of a tight bind and needed oil, we have given the President an additional 1 million barrels a day for the next 2 years, discretionary authority. By balance, I think we have built in the kind of flexibility we need to begin to come to grips with this problem. American oil is drying up with or without a quota. We cannot afford the dependence today. We must develop our own sources.⁸ . . .

The fact of the matter is that we are going to run out of oil at some point, and unless we begin to develop alternate sources of energy in this country, we are in trouble.

⁴ Ibid., p. H5230.

⁵ Ibid., p. H5231.

⁶ Ibid., p. H5233.

⁷ Ibid., p. H5235.

⁸ Ibid., p. H5230.

Let us say it is 35 years, 13 years, or 42 years, or let us say it is 112 years. The fact of the matter is that we are going to run out of oil in this country, and we cannot, in the meantime, continue to be dependent and be placed in a position where the OPEC countries can strangle the United States of America. Unless we begin to put a quota on as to how much we are going to take, and unless we begin to develop alternate sources of energy in this country, we can quibble as to whether it is 35 years, 13 years, or 50 years, but we have to get down to doing the job that is necessary.⁹

At the end of the 2 weeks of hard fought floor debate, as the House moved toward the final showdown vote on June 19, 1975, the Chairman of the Ways and Means Committee summed up the message that was intended to be communicated through the measure and through the then still pending critical vote, which shortly afterward passed by a vote of 291 yeas to 130 nays.

Mr. ULLMAN. Mr. Chairman, we are about to conclude a long and tedious debate on the subject of energy.

We know better now than we did in the beginning that there are no easy answers. There will be, I understand, a recommittal motion; but I would like to say to my colleagues that a recommittal has to be a dead end. There is no way we can go back to the committee and take a new turn. . . .

We begin by telling the OPEC countries and the world that we are putting a limit on the amount of oil we import. From now on we are not going to import oil without limit. We are telling the oil-producing countries that there will no longer be an unlimited flow of petroleum into this country from abroad.¹⁰ We are telling industry and utilities, through our excise tax provisions, that they simply must begin the job of converting to coal and nuclear energy. We are telling the automobile industry that they simply have to start building more efficient automobiles in this country.

We have credits here for the average citizen with respect to home insulation to conserve heat, which is very important.

We have tax incentives that I think are very important in developing the flow of capital into vital areas which will produce alternative energy sources.

We have a trust fund that goes specifically to developing alternative energy sources in a meaningful way. This also is very important. . . .

Mr. Chairman, the way that legislation is passed in Congress is that we build a framework, we build a base and this is a base. We build over it in subsequent legislation. That is the way it ought to be with energy policy.

Soon to come along will be the energy bill from the Committee on Interstate and Foreign Commerce on which they have jurisdiction, and these two measures will work together. Then after that we will have the bill brought out by the gentleman from Washington (Mr. McCormack) on NASA and atomic energy. That is another ingredient added on to what we now have and will soon have. Together, they will all make up our energy policy.¹¹

This still controversial portion of the new national energy policy waits Senate action, but the legislative process just described is now well under way. With the enactment of the new Energy Policy and Conservation Act, the framework laid out in the early composite plans has been substantially converted to a base on which additional energy legislation and new policy continues to be built.

⁹ Ibid., p. H5236.

¹⁰ Mr. Ullman spoke extemporaneously on the floor and was misquoted in one respect by the recorder; he used the word "companies" not "countries" in the second sentence. As phrased in the written text of his remarks, issued at the end of the debate, this paragraph reads: "The energy bill passed today is a message to the world that we are not going to import unlimited foreign oil. It's a message to the oil companies that they can't count on mounting supplies of OPEC oil for their refineries—that they must restructure their production. We are signalling industry and electric utilities that a massive shift away from oil toward other sources of energy must begin. And the energy bill includes a clear order to produce cars that don't waste so much gasoline."

¹¹ Congressional Record, June 19, 1975, pp. H5743-45.

The first of these is the fact that the
 system is not a simple one, and that
 the results are not always the same.

The second is that the system is not
 a simple one, and that the results are
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APPENDIXES

APPENDIX I

Breakdown of Federal Energy Outlays—1976 and 1977

BREAKDOWN OF FEDERAL ENERGY OUTLAYS, 1976 AND 1977

[Outlays in millions of dollars; fiscal years]

	1976	1977
Domestic energy resource development, conservation, and petroleum storage:		
Energy Independence Authority.....		650
Uranium enrichment (ERDA).....	874	1,216
Naval petroleum reserves/strategic petroleum storage.....	11	304
TVA and power administrations:		
Capital.....	(1,778)	(1,956)
Operating.....	(1,772)	(1,918)
Subtotal.....	3,550	3,874
Rural electrification loans (REA).....	737	849
Department of the Interior support for Outer Continental Shelf and on-shore leasing of oil, gas, and energy minerals.....	162	185
FEA nonregulatory programs.....	169	168
Other.....	13	13
Subtotal.....	5,516	7,259
Energy research, development, and demonstration:		
Direct energy R. & D.	1,659	2,239
Supporting energy R. & D.	506	589
Department of the Interior research for coal mine health and safety.....	29	30
Subtotal.....	2,194	2,858
Regulation of the industry:		
Nuclear Regulatory Commission.....	106	120
Federal Power Commission.....	37	41
FEA regulatory programs.....	29	17
Department of the Interior regulation of coal mines.....	62	66
Subtotal.....	234	244
Total outlays.....	7,944	10,361

Source: White House fact sheet, Feb. 26, 1976.

APPENDIX II

Comparison of Three Composite Energy Plans

A COMPARISON OF THREE CURRENT ENERGY PLANS

The three plans which are compared are :

1. "The President's Plan"—The summary includes some measures undertaken as administrative acts as well as the provisions of the Administration's omnibus energy bill, introduced in the Senate as S. 594 on February 5, 1975 and in the House as H.R. 2633 and H.R. 2650 on February 4, 1975. An official summary was reprinted in the *Congressional Record*, February 5, 1975, pp. S1421-26.

2. "Ways and Means"—The summary is taken from the suggested alternative proposals drawn up by eight task forces made up of the Democratic members of the House Ways and Means Committee and issued March 3, 1975. A text is reprinted in the *Congressional Record*, March 4, 1975, pp. H1370-1374. The draft proposals differ somewhat from the provisions of H.R. 5005 introduced by Mr. Ullman, March 17, 1975.

3. "Democratic Majority"—The summary is drawn from the recommendations prepared jointly by the Democratic Policy and Steering Committee of the House and Democratic Policy Committee of the Senate as the Democratic Majority's comprehensive proposals covering both energy and economic recovery. Entitled, "The Congressional Program of Economic Recovery and Energy Sufficiency," it was announced February 27, 1975 and was printed by the Senate Democratic Policy Committee for use by Members of Congress.

A COMPARISON OF 3 CURRENT ENERGY PLANS

Goal and task	President's plan	Ways and Means	Democratic majority
I. Reduce dependence on foreign oil.	Essential.	Agree—but not so fast and not through tariffs.	Agree—but economic restoration is Nation's highest priority.
By what means?	Import fees, tariffs, and excise taxes: Rely on price and market to lower imports, through lowered consumption.	Quantitative controls: Import quotas, Federal Petroleum Purchasing Agency to buy all imports.	Conservation Board decide whether import quotas or other means are needed.
How much and how fast?	1,000,000 bbl/d, end 1975; 2,000,000 bbl/d end 1976. But this still means rise in imports from 5,300,000 bbl/d, 1975 to 5,800,000 bbl/d, 1977 (administration figures).	1,000,000 bbl/d over 2 to 3 yr, an estimated 400,000 bbl/d 1976.	Believe total program will reduce "domestic consumption of imported petroleum," 500,000 bbl/d, 1st yr; 1,600,000 bbl/d, 2d yr; 5,000,000 bbl/d, 1980.
Reduce and limit imports to what levels?	3,000,000 to 5,000,000 bbl/d by 1985.	To about 25 percent of expected domestic oil output by "early 1980's," estimated 4,000,000 bbl/d based on estimated domestic oil production of 15,800,000 bbl/d (in 1985).	To about 10 percent of expected domestic energy consumption by 1985. [Estimated 4,500,000 bbl/d based on plan's target of holding energy consumption to 45,000,000 bbl/d in oil equivalent in 1975.]
II. Protect against disruption of imports.	Essential.	Agree.	Agree.
By creating a system of strategic petroleum reserves.	Fully explore, develop and produce all (4) naval petroleum reserves. Use oil and revenue gained to create a national petroleum reserve stockpile of not more than: 1,000,000,000 bbl for civilian use. 3,000,000 bbl—military use. Reserve 20 percent of production NPR No. 4 for strategic reserves; balance for the public economy. (Note: It is anticipated that NPR No. 4 will be able to produce a minimum of 2,000,000 bbl/d by 1985. 80 percent of this would be 1,600,000 bbl/d for current public consumption.) Require any domestic importer or refiner to maintain stored petroleum reserves as determined by President.	Accumulate reserve stockpile by— Federal purchase of imports (outside any quota limit) and/or From naval petroleum reserves. Goal: during next few years:— 30 percent of annual imports, (e.g., 6 mo. supply); at import level of 5,000,000 bbl/d, this would equal 600,000,000 bbl.	Accumulate reserve stockpile by— Federal purchase of imports and from naval petroleum. From naval petroleum reserves, OCS and market place. Goal:— 3,000,000 bbl/d for 6 mo by 1980. [Equals 5,000,000,000 bbl and 3,000,000 bbl/d for full year by 1985 [equals 1,000,000,000 bbl.] National Energy Production Board would "oversee establishment".
Authorize standby energy authority including particularly:	Essential. To deal with future embargoes, international commitments, other emergencies. To be invoked only if President finds emergency situation exists.	Agree. But in addition: Mandatory allocation of oil needs to be continued in any case to insure shifts from oil and other conservation measures. Continue current legislative authority and FEA allocation system. (Public Law 93-159).	Agree. But the allocation and other standby authority should be vested in the National Energy Production Board, and we should extend allocation system now to "accommodate" reduced dependence by "managing and controlling" excessive consumption.
Allocation of fuels.			Agree.
End-user consumer rationing.	Only in emergency, e.g., embargo.	Agree on goal but not on method.	Agree on goal but not on method.
By what means in general?	Essential. Rely mainly on increased prices, jawboning for voluntary compliance, modest subsidies and relaxed auto emission requirements.	Specific incentive and disincentive taxes and subsidies for specific conservation targets, plus selected mandatory conservation measures.	Similar to ways and means plus extended mandatory allocation program to manage and control excessive energy consumption.

By what means specifically?

Increase prices	(a) Import fees, tariffs on imported oil. (b) Excise taxes on domestic oil and gas. (c) Deregulate old oil. (d) Deregulate new gas. (e) Establish oil floor price.	(a) Reject. (b) Reject general tax—Propose specific taxes on gasoline inefficient autos. (c) and (d) Reject as conservation measure—but—propose phased deregulation to encourage increased production. (e) Reject.	(a) Reject. (b) Reject general tax—Propose specific taxes on gasoline inefficient autos. (c) and (d) Reject as conservation measure—but—propose phased deregulation to encourage increased production. (e) Reject.
Improve auto fuel efficiency	Relax clean air standards on cars; voluntary effort by industry to improve 40 percent by 1980.	Auto efficiency tax, beginning 1977 model year of \$0 to \$500 for 20 >—15 m.p.g. Tax credit for new auto purchase, graduated “Consider” mandatory fuel standards by 1979 model year. 5 cents per gallon 1975 rising to 40 cents 1979. “Consider” tax credits for residential energy improvements including solar equipment, and rapid amortization commercial solar equipment. Investment credits for industrial retrofitting on large scale.	(a) Reject—Recommend some price control to shield consumer from OPEC-inflated prices. Mandatory fuel and efficiency standards to improve 50 percent by 1980, 100 percent by 1985. Purchase rebates for low-use cars, excise tax for high-use car. R. & D. for low-fuel, low-polluting new auto prototype. 5 cents per gallon but primarily for revenue. Major loan guarantees, grant, tax credit program for insulation, etc., to upgrade 40,000,000 houses in 10 yr. Upgrade standards for new construction, especially Federal buildings.
Gasoline tax	None. Design thermal efficiency standards for new buildings to be promulgated through States (after about 4 yr). Finance 3-yr State “winterizing” program mainly for low-income homes—\$9,000,000 1975, \$55,000,000 1976–77.	Relax clean air standards. Expand authority to require conversion to coal.	“Discourage” use of natural gas in new plants. Tax credit and loans to retrofit for coal; “suggests” current clean air standards not be increased for such plants. Financing for improved transmission, extended lines. Better use of existing capacity, redesign rate structure.
Encourage conversion to coal	Relax clean air standards. Expand authority to require conversion to coal.	Relax clean air standards. Require switch to coal “ASAP.” 3-yr amortization of costs of new coal equipment.	“Discourage” use of natural gas in new plants. Tax credit and loans to retrofit for coal; “suggests” current clean air standards not be increased for such plants. Financing for improved transmission, extended lines. Better use of existing capacity, redesign rate structure.
More efficient electric utilities	Change “offpeak” pricing to encourage more balanced use. Permit increased rates submitted in this plan as method to expand supplies but effect could be restrained use.	“Encourage” experiments with utility rate design alternatives, establish rate restructuring under FPC.	Financing for improved transmission, extended lines. Better use of existing capacity, redesign rate structure.
Encourage mass transit	Supports mass transit (included in budget request).	Supported as object of energy trust fund expenditures. Use high-way trust fund to expand mass transit. Increase Federal aid to railroads.	Added funding for public transport, railroad rehabilitation, electrification.
Increase domestic energy supply: Oil and natural gas: Price incentives	Deregulate old oil. Deregulate new gas. Establish floor price for oil.	Accept phased deregulation of oil and natural gas—over several years. Alternative approaches are being considered covering time frame of 5 to 5 yr. Reject floor prices.	Accept phased deregulation of oil and natural gas—over several years. But maintain control to separate price of domestic energy from OPEC control. United States should determine its own energy prices. Reject floor price.
Tax incentives	Retain depletion allowance (however, windfall tax would reduce base). Impose graduated tax (15 percent to 90 percent) which would phase out on all domestic crude to capture windfall profits. No plowback.	Eliminate depletion allowance on all crude oil as of Jan. 1, 1975 (H.R. 2166). Phase out small producers by Jan. 1, 1978. Eliminate depletion allowance for most natural gas. Graduated “windfall” profits tax plus plow back.	Eliminate depletion allowance on all foreign drilling. Retain D/A only for small producers who do not operate retail outlets. Excess profits tax, avoidable by “plowback” reinvestment. Proceeds to energy trust fund.

A COMPARISON OF 3 CURRENT ENERGY PLANS—Continued

Goal and task	President's plan	Ways and Means	Democratic majority
	No change in taxes which encourage U.S. companies to invest in oil/gas production abroad, but import fee of \$1.20 on product imports to be increased to \$2 per barrel after excise tax is enacted to keep excise tax from encouraging foreign refining.	"Neutralize" tax laws to remove incentives to invest abroad, several alternatives being considered.	Eliminate foreign tax subsidies so U.S. capital is not encouraged to invest abroad.
Alaskan oil and gas.....	Devote 80 percent NPR No. 4 output to current use (est. 1,000,000 bbl/d by 1985).	Not discussed in current proposal.	Develop NPP's rapidly to make "estimated 10,-000,000,000 to 40,000,000,000 bbl." available for "storage or commercial use."
Outer Continental Shelf.....	Legislation to be submitted for constructing a natural gas pipeline from Alaska.	Not discussed in current proposal.	"Expedited consideration" of natural gas delivery system from Alaska.
	Accelerated development and production under existing law, including lease sales in Atlantic, Pacific, and Gulf of Alaska.	No mention.	Revise OCS Act to accelerate "exploration consistent with public interest", public data bank, production under leases to prevent withholding, mandatory unitization.
Enlist more independent producers.	No special provision but antitrust legislation to be enforced against "price fixing and bid-rigging" (Oct. 6, 1974, address, reaffirmed Jan. 15, 1975.)	No special provision except possible delay in eliminating depletion allowance for small producers. No special antitrust provision.	Change bidding system for all Federal leases "to permit greater participation by small companies." Similar possible concession on depletion allowance. Strengthen antitrust laws to promote free enterprise and completion.
Coal:			
Environmental considerations.....	Strip mining—Modified version of vetoed bill. Design new program of coal leasing.	Strip mining reclamation and mine safety programs are listed as programs which could be funded from an energy trust fund.	Enact the Strip Mining Control Act.

Tax incentives.....	No special provision, investment credit increased for all investors to 12 percent for 1 yr.	5-yr amortization new coal mining and coal using equipment and associated railroad expansion. 50-yr amortization gradings and bores "might be considered."	No special provision: mentions "Coal conversion incentives of major proportion," to induce shift of all electric utilities and heavy industrial boilers in 10 yr but coal mining not mentioned as candidate for major loans, etc.
Capital incentives.....	No special provision.....	"Capital must be raised for opening new coal mines."	No special provisions.
Nuclear.....	Expedited licensing and siting (separate legislation) and 1976 budget increase of \$41,000,000 for nuclear safeguards and waste management.	Tax incentives suggested to "encourage and facilitate expansion" if environmental issues are settled.	National Energy Production Board to directly undertake finance on contract or joint venture; commercial demonstration of synthetic fuels oil shale, MHD, Geothermal; Solar.
Alternate fuels.....	National synthetic fuels commercialization program (announced Jan. 15, 1975) to produce 1,000,000 bbl/d synthetic fuels by 1985 from oil shale and coal. Rely on ERDA for continuing program in other fuels development.	Recycled oil—tax incentives to encourage. Solid wastes as fuel—tax and other incentives. Geothermal—expand definition of intangible drilling expense to include costs associated with geothermal. Solar energy—tax incentives to encourage retrofitting. Synthetic oil and gas, "Be alert" to possible encouragement measures.	
Research and development.....	To be administered by and through ERDA and its budget.	To be financed in part through an energy trust fund.	To be financed in part through an energy trust fund, similar to highway trust fund, into which 5 cents gasoline tax would be paid.
Energy management measures designed to speed up development and production of energy supplies.	Reform utilities regulation to allow increased rates to finance capital expansion—readjust off-peak pricing—allow full pass through of all costs. Expedite energy facilities planning and siting: FEA prepares a national plan; States prepare related management plans.	No special provisions.....	Reform utilities rate structure and speed up FPC and State regulatory procedures, but reject any automatic pass-through on costs. Enact regional planning mechanism in which States can participate and resolve regional concerns through other agencies.



APPENDIX III

Energy Related Legislation—

Status as of March 18, 1976

THE 94TH CONGRESS AND THE ENERGY RECORD

STATUS AS OF MARCH 18, 1976

I. PROTECT AGAINST DISRUPTION IN OIL IMPORTS AND OTHER ENERGY SHORTAGES

Goal and task bill No. and title	House action	Senate action	Public Law; date signed
Energy Policy and Conservation Act; titles I(B), II, IV(B); H.R. 7014/S. 622.	H. Rept. 94-340, July 9, ¹ 1975 (passed Sept. 23, 1975). Conf. Rept., H. Rept. 94-700 (passed Dec. 15, 1975).	----- Conf. Rept., S. Rept. 94-516 (Passed Dec. 17, 1975).	Public Law 94-163; Dec. 22, 1975.
Standby energy authorities; title I; S. 622.	(1)-----	S. Rept. 94-26, Mar. 5, 1975 (passed Apr. 10, 1975 and Sept. 23, 1975).	
Establish a National Strategic Reserve Office in Federal Energy Administration; S. 677.	(1)-----	S. Rept. 94-260, June 26, 1975 (passed July 8, 1975 and Sept. 23, 1975).	
Develop petroleum reserves on public lands; H.R. 49/S. 2173.	H. Rept. 94-81, pt. 1 Mar. 18, 1975; pt. 2 Apr. 18, 1975; pt. 3 Apr. 22, 1975 (passed July 8, 1975). (To conference Oct. 2, 1975.)	S. Rept. 94-327, July 24, 1975 (passed July 29, 1975).	
Extend Defense Production Act through June 30, 1977; S. 1537/H.R. 10031.	Passed Nov. 14, 1975.----- Conf. Rept., H. Rept. 94-673, Nov. 18, 1975 (passed Dec. 3, 1975).	S. Rept. 94-353, July 31, 1975 (passed Sept. 15, 1975). Conf. Rept., S. Rept. 94-460 (passed Nov. 18, 1975).	Public Law 94-152; Dec. 16, 1975.

II. RESTRAIN AND RESHAPE ENERGY DEMAND

Goal and task bill No. and title	House action	Senate action	Public Law; date signed
Energy Policy and Conservation Act; Title III; H.R. 7014/S. 622.	H. Rept. 94-340, ¹ July 9, 1975 (passed Sept. 23, 1975). Conf. Rept., H. Rept. 94-700 (passed Dec. 15, 1975).	(1)----- Conf. Rept., S. Rept. 94-516 (passed Dec. 17, 1975).	Public Law 94-163; Dec. 22, 1975.
Standby energy authorities; title II, energy conservation policy; S. 622.	(1)-----	S. Rept. 94-26, Mar. 5, 1975 (passed Apr. 10, 1975 and Sept. 23, 1975).	
Truth in Energy Act of 1975; S. 349.	(1)-----	S. Rept. 94-253, June 24, 1975 (passed July 11, 1975).	
Auto Fuel Economy Act of 1974; S. 1883.	(1)-----	S. Rept. 94-179, June 24, 1975 (passed July 15, 1975).	
Motor Vehicle Information and Cost Savings Act; S. 1518.	(Passed Jan. 22, 1976)-----	S. Rept. 94-155, May 22, 1975 (passed June 5, 1975).	
Energy Conservation and Conversion Act; titles II, III, V; H.R. 6860.	H. Rept. 94-221, May 15, 1975 (passed June 19, 1975).	Hearings, Finance, July 10, to 18, 1975 (markup began July 21, 1975).	
Building energy conservation standards; H.R. 8650/S. 1483. ²	H. Rept. 94-377, July 22, 1975; Sept. 8, 1975.	S. Rept. 94-86, April 18, 1975. S. Rept. 94-623, Feb. 3, 1976 (passed Mar. 9, 1976).	
Home Energy Disclosure Act; S. 2063.	-----	S. Rept. 94-265, July 8, 1975.	
Industrial Conservation Act; S. 1908.	-----	Markup underway.	
Regional Rail Reorganization Act amended; S. 281/H.R. 2051.	H. Rept. 94-7, Feb. 19, 1975 (passed Feb. 19, 1975).	S. Rept. 94-5, Jan. 27, 1975 (passed Jan. 29, 1975).	Public Law 94-5; Feb. 29, 1975.
Amtrack Improvement Act, supplemental funds, fiscal year 1975-77; S. 852/H.R. 4975.	H. Rept. 94-119, Mar. 26, 1975 (passed Apr. 24, 1975).	S. Rept. 94-65, Apr. 9, 1975 (passed May 13, 1975).	Public Law 94-25; May 25, 1975.
Rail Transportation System, provide jobs and funds to repair; S. 1730/H.R. 8672. ³	H. Rept. 94-485 (passed Oct. 23, 1975).	S. Rept. 94-134, May 13, 1975 (passed May 16, 1975).	
Department of Transportation appropriations through Sept. 30, 1976; H.R. 8365.	H. Rept. 94-331, June 26, 1975 (passed July 10, 1975). Conf. Rept. 94-639 (passed Nov. 11, 1975).	S. Rept. 94-291, June 22, 1975 (passed July 27, 1975). Passed Nov. 12, 1975.	Public Law 94-134; Nov. 24, 1975.
Rail Services Act, comprehensive assistance to improve railroad services, including regulatory reform and \$6,100,000,000 in aid; S. 2718/H.R. 10979.	H. Rept. 94-725, Dec. 12, 1975 (passed Dec. 17, 1975). Conf. Rept. 94-781, Jan. 23, 1976 (passed Jan. 28, 1976).	S. Rept. 94-499, Dec. 1, 1975 (passed Dec. 4, 1975). Conf. Rept. 94-595, Jan. 27, 1976 (passed Jan. 28, 1976).	Public Law 94-210; Feb. 5, 1976.
Electric Vehicle R. & D. Demonstration Act; H.R. 8800.	H. Rept. 94-439, July 31, 1975 (passed Sept. 5, 1975).	-----	

See footnotes at end of table.

II. RESTRAIN AND RESHAPE ENERGY DEMAND—Continued

Goal and task bill No. and title	House action	Senate action	Public Law; date signed
National Petroleum and Natural Gas Conservation and Coal Substitution Act; S. 1777.	-----	Hearings held-----	
Resolution declaring Senate support for a National Energy Conservation Crusade; S. Res. 59.	-----	Passed Feb. 5, 1975-----	
III. INCREASE DOMESTIC ENERGY SUPPLIES (Measures include energy management and pricing issues)			
Goal and task bill No. and title	House action	Senate action	Public Law; date signed
Tax Reduction Act of 1975. Includes increases in investment tax credits including public utilities, repeal oil and gas depletion allowances for large firms and changes in foreign tax credits allowed in connection with foreign oil extraction, H.R. 2166.	H. Rept. 94-19, Feb. 25, 1975 (passed Feb. 27, 1975). Conf. H. Rept. 94-120, Mar. 26, 1975 (passed Mar. 26, 1975).	S. Rept. 94-36, Mar. 17, 1975 (passed Mar. 22, 1975 and Mar. 26, 1975).	Public Law 94-12; Mar. 29, 1975.
1st concurrent resolution on the budget fiscal year 1976 Natural resources, environment and energy outlays assumed equal \$11,600,000,000. H. Con. Res. 218.	H. Rept. 94-145, Apr. 15, 1975 (passed May 1, 1975). H. Rept. 94-198, May 9, 1975 (passed May 14, 1975).	S. Rept. 94-113 (passed May 5 and 14, 1975).	
Energy Policy and Conservation Act; titles I(A), IV, and V; H.R. 7014. ⁴	H. Rept. 94-340, July 9, 1975 (passed Sept. 23, 1975). Conf. Rept., H. Rept. 94-700 (passed House Dec. 15, 1975).	(1) Conf. Rept., S. Report 94-516 (passed Dec. 17, 1975).	Public Law 94-163 Dec. 22, 1975.
Standby energy authorities; title I, price increase incentives and title III, conversion to other fuels; S. 622. ⁴	(1)	S. Rept. 94-26, Mar. 5, 1975 (passed Apr. 10, 1975 and Sept. 23, 1975).	
Petroleum price increase limitation (set ceiling for all except "old" oil at about \$11-\$12 per barrel). ⁴ S. 621 (H.R. 4035/H. Res. 351).	H. Rept. 94-65, Mar. 14, 1975 (passed May 5, 1975). Conf. Rept., H. Rept. 94-356, Jun. 14, 1975 (passed July 17, 1975).	S. Rept. 94-32, Mar. 7, 1975 (passed May 1, 1975 and July 16, 1975).	Vetoed July 21, 1975.
Natural Gas Emergency Act of 1975, including pricing revisions and emergency conservation and allocation measures; S. 2310/H.R. 9464.	H. Rept. 94-732, Dec. 15, 1975. Supp. Rept. Feb. 3, 1976 (passed Feb. 5, 1976).	Passed Oct. 22, 1975-----	
Strip Mining Control and Reclamation Act; S. 7/H.R. 25.	H. Rept. 94-45, Mar. 6, 1975 (passed Mar. 18, 1975). Conf. Rept., H. Rept. 94-189, May 2, 1975 (passed May 7, 1975); veto sustained Jun. 10, 1975.	S. Rept. 94-28, Mar. 5, 1975 (passed Mar. 12, 1975, Mar. 20, 1975). Conf. Rept. 94-101, May 2, 1975 (passed May 5, 1975).	Vetoed May 20, 1975.
Coal leasing and reclamation on Federal lands; S. 391/H.R. 6721.	H. Rept. 94-681, Nov. 21, 1975 (passed Jan. 21, 1976).	S. Rept. 94-296, Jun. 23, 1975 (passed July 31, 1975).	
Strip mining control; H.R. 9725-----	H. Rept. 94-896, Mar. 15, 1976.	-----	
National park mining regulations; S. 2371.	-----	S. Rept. 94-567, Dec. 16, 1975 (passed Dec. 4, 1976).	
Oil shale revenues, enable States to use for purposes other than public roads and schools; S. 834.	-----	S. Rept. 94-85, Apr. 18, 1975 (passed Apr. 22, 1975).	
Outer Continental Shelf development; S. 521/H.R. 6218.	Markup began Feb. 25, 1976.	S. Rept. 94-284, July 17, 1975 (passed July 30, 1975).	
Create a Select Committee on the Outer Continental Shelf; H. Res. 412.	Passed Apr. 22, 1975-----	-----	
Provide funding for study of OCS by Select Committee; H. Res. 427.	H. Rept. 94-231, May 20, 1975 (passed May 22, 1975).	-----	
Coastal Zone Management Act amendments; S. 586/H.R. 3981.	H. Rept. 94-878, Mar. 4, 1976 (passed Mar. 11, 1976).	S. Rept. 94-277, July 11, 1975 (passed July 16, 1975).	

See footnotes at end of table.

III. INCREASE DOMESTIC ENERGY SUPPLIES (Measures include energy management and pricing issues)—Con.

Goal and task bill No. and title	House action	Senate action	Public Law; date signed
Energy Research and Development Administration (ERDA) authorize appropriations for fiscal year 1976; H.R. 3474/S. 598.	H. Rept. 94-294, June 13, 1975 (passed June 20, 1975). Conf. Rept., H. Rept. 94-696, Dec. 8, 1975 (passed Dec. 11, 1975).	S. Rept. 94-104, May 6, 1975; S. Rept. 94-332, July 24, 1975 (passed July 31, 1975). Conf. Rept., S. Rept. 94-514, Dec. 8, 1975 (passed Dec. 9, 1975).	Public Law 94-187; Dec. 31, 1975.
Nuclear Regulatory Commission (NRC) authorize appropriations for fiscal year 1976; H.R. 7001/S. 1716.	H. Rept. 94-260, June 4, 1975 (passed June 20, 1975).	S. Rept. 94-174, June 4, 1975 (passed June 17, 1975 and July 31, 1975).	Public Law 94-79; Aug. 9, 1975.
NRC supplemental funding for improved nuclear safety measures, \$50,200,000; H.R. 4224/S. 994.	H. Rept. 94-100, Mar. 20, 1975 (passed Apr. 10, 1975).	S. Rept. 94-500, Mar. 20, 1975 (passed Mar. 24, 1975).	Public Law 94-18; Apr. 27, 1975.
Revise method of public remuneration in the event of a nuclear incident; H.R. 8631/S. 2568.	H. Rept. 94-648, Nov. 10, 1975 (passed Dec. 8, 1975, Dec. 17, 1975).	Passed Dec. 16, 1975-----	Public Law 94-197; Dec. 13, 1975.
Water and power development and energy research, Public Works appropriations for fiscal year 1976; H.R. 8122.	H. Rept. 94-319, June 20, 1975 (passed June 24, 1975). Ccnf. Rept., H. Rept. 94-711 (passed Dec. 12, 1975).	S. Rept. 94-505 (passed Dec. 6, 1975). Conf. Rept., S. Rept. 94- (passed Dec. 12, 1975).	Public Law 94-180; Dec. 26, 1975.
Energy trust fund, title IV of the Energy Conservation and Conversion Act.	H. Rept. 94-221, May 15, 1975 (passed June 19, 1975).	Hearings, Finance, July 10 to 18, 1975 (markup began July 21, 1975). Nearing markup-----	
National Energy Production Board; S. 740.	-----	-----	
Provide loans to small businesses economically injured due to disruption in service of public utilities; H.R. 4888.	H. Rept. 94-288, June 12, 1975 (passed June 17, 1975).	-----	
Rural electrification loan program amendments; H.R. 4888.	H. Rept. 94-353, July 14, 1975 (passed July 21, 1975 and Oct. 22, 1975).	S. Rept. 94-424, Oct. 9, 1975 (passed Oct. 20, 1975).	Public Law 94-124; Nov. 4, 1975.
Protect franchised dealers in petroleum products; S. 323.	-----	S. Rept. 94-120, May 13, 1975 (passed June 20, 1975).	
Energy Independence Authority; S. 2532/H.R. 10267.	Hearings held-----	-----	

IV. REDUCE DEPENDENCE ON FOREIGN OIL

Goal and task bill No. and title	House action	Senate action	Public Law; date signed
Energy Conservation and Conversion Act; title I, establish oil import quotas; H.R. 6860 (H.R. 5005.)	H. Rept. 94-221, May 15, 1975 (passed, June 19, 1975).	Hearings, Finance, July 10, to 18, 1975 (Markup began July 21, 1975).	

¹ H.R. 7014 was passed in the House under the bill No. S. 622, went to conference with an amalgamated Senate draft which included 4 previously passed Senate bills, S. 622, S. 1883, S. 349, S. 677.

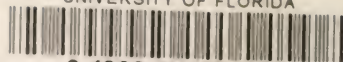
² Earlier debate and vote on these issues took place in connection with title III of the Emergency Middle Income Housing Act, H.R. 4485/S. 1483, H. Rept. 94-64, Mar. 14, 1975. Passed House June 5, 1975, but the provision was dropped in Conference. See Conference Report, H. Rep. 94-246, May 22, 1975.

³ Attempts were made to include \$700,000,000 for railroad track repair in 2 other bills, Emergency Employment Appropriations, H.R. 4481, and in a supplemental appropriations bill, H.R. 5899, but the provision was dropped from the final version.

⁴ In addition to these bills, there was House or Senate action on several other bills, disapproving proposed Presidential actions on existing price controls relating to crude oil, including H. Res. 439, H. Res. 605, H. Res. 613, S. Res. 145, H. Res. 641, and H. Res. 651.



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